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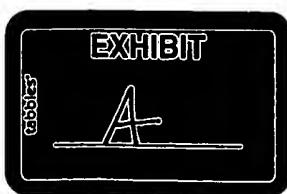
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Selection of papers on solid phase peptide synthesis published after 1996

Solid phase peptide synthesis was invented by Bruce Merrifield in 1963 and became very quickly the routine tool for preparation of peptides and later small proteins. Surprisingly, solid phase synthesis of small organic molecules was accepted only after another 30 years. The compilation of papers dealing with solid phase peptide synthesis would be extremely long. Luckily, Gregg Fields edited the book Solid Phase Peptide Synthesis in the series Methods in Enzymology (Fields, G.B. (1997) Solid-Phase Peptide Synthesis. Academic Press, San Diego. #9830), which covers all aspects of this methodology. We decided to cover here only papers published after publication of Fields' book. This compilation will probably never be complete, but we will try to cover the most important methodological papers. This list is arranged by the year and the name of the first author. Any omissions, mistakes and inconsistencies please communicate to the authors of compilation (michal@5z.com). (If you are pointing to any reference, please use its ID# -- the last number in the reference.) You are welcome to use this compilation in your work. Proper way to quote it in your paper is: Lebl M., Leblova Z.: Dynamic database of references in solid phase synthesis. Internet <http://www.5z.com>.

Recently added entries are marked in bold

1. **Balaspiri, L., & Langel, U. (2001) Synthesis of b-amyloid precursor peptide and presenilin segments. J. Peptide Sci., 7, 58-60. #16430**
2. **Bullesbach, E.E., & Schwabe, C. (2001) Synthesis and conformational analysis of the insulin-like 4 gene product. J. Pept. Res., 57, 77-83. #16258**
3. **Burgess, K., Han, I., Zhang, A., Zheng, W.H., Shanmugam, K., Featherstone, M.S., & Saragovi, H.U. (2001) DiSSiMiL: Diverse Small Size Mini-Libraries applied to simple and rapid epitope mapping of a monoclonal antibody. J. Pept. Res., 57, 68-76. #16259**
4. **Dekker, N., Cox, R.C., Kramer, R.A., & Egmond, M.R. (2001) Substrate specificity of the integral membrane protease OmpT determined by spatially addressed peptide libraries. Biochemistry, 40, 1694-1701. #16271**
5. **Demarcus, M., Ganadu, M.L., Mura, G.M., Porcheddu, A., Quaranta, L., Reginato, G., & Taddei, M. (2001) Small ring constrained peptidomimetics. Synthesis of epoxy peptidomimetics, inhibitors of cysteine proteases. J. Org. Chem., 66, 697-706. #16273**
6. **Dolence, E.K., Dolence, J.M., & Poulter, C.D. (2001) Solid-phase synthesis of a radiolabeled, biotinylated, and farnesylated Ca(1)a(2)X peptide substrate for Ras- and a-mating factor converting enzyme. Bioconjug. Chem., 12, 35-43. #16275**
7. **Futaki, S., Youjun, Z., & Sugiura, Y. (2001) Detecting a tag on a channel opening: Blockage of the biotinylated channels by streptavidin. Tetrahedron Lett., 42, 1563-1565. #16423**
8. **Gatos, D., & Tzavara, C. (2001) Comparison of the solid-phase fragment condensation and phase-change approaches in the synthesis of salmon I calcitonin. J. Pept. Res., 57, 168-174. #16427**



9. Geginat, G., Schenk, S., Skoberne, M., Goebel, W., & Hof, H. (2001) A novel approach of direct *ex vivo* epitope mapping identifies dominant and subdominant CD4 and CD8 T cell epitopes from *Listeria monocytogenes*. *Journal of Immunology*, 166, 1877-1884. #16288
10. Henlin, J.M., Boutin, J.A., Kucharczyk, N., Desmet-Beaufort, C., Loynel, A., Bertrand, M., Genton, A., Tucker, G.C., Atassi, G., & Fauchere, J.L. (2001) From peptide libraries to optimized nonpeptide ligands in the search for S-farnesyltransferase inhibitors. *J. Pept. Res.*, 57, 85-96. #16425
11. Kitagawa, K., Aida, C., Fujiwara, H., Yagami, T., Futaki, S., Kogire, M., Ida, J., & Inoue, K. (2001) Facile solid-phase synthesis of sulfated tyrosine-containing peptides: Total synthesis of human big gastrin-II and cholecystokinin (CCK)-39 (1,2). *J. Org. Chem.*, 66, 1-10. #16313
12. Kumar, K.S., Roice, M., Sasikumar, P.G., Poduri, C.D., Sugunan, V.S., Pillai, V.N.R., & Das, M.R. (2001) Syntheses of immunodominant peptide regions of hepatitis C viral pathogens using PS-BDODMA resin: A single peptide derived from the conserved domain (E2/NS1) was highly effective in detecting anti-HCV antibodies. *J. Pept. Res.*, 57, 140-150. #16426
13. Lelievre, D., Bure, C., Laot, F., & Delmas, A. (2001) Synthesis of peptide di-aldehyde precursor for stepwise chemoselective ligations via oxime bonds. *Tetrahedron Lett.*, 42, 235-238. #16326
14. Licha, K., Hessenius, C., Becker, A., Henklein, P., Bauer, M., Wisniewski, S., Wiedenmann, B., & Semmler, W. (2001) Synthesis, characterization, and biological properties of cyanine-labeled somatostatin analogues as receptor-targeted fluorescent probes. *Bioconjug. Chem.*, 12, 44-50. #16329
15. Marchetto, R., Nicolas, E., Castillo, N., Bacardit, J., Navia, M., Vila, J., & Giralt, E. (2001) Two short peptides including segments of subunit A of *Escherichia coli* DNA gyrase as potential probes to evaluate the antibacterial activity of quinolones. *J. Peptide Sci.*, 7, 27-40. #16441
16. McNamara, L.M.A., Andrews, M.J.I., Mitzel, F., Siligardi, G., & Tabor, A.B. (2001) Unexpected conformational properties of a peptide constrained by an aliphatic link between the i and i+4 positions. *Tetrahedron Lett.*, 42, 1591-1593. #16424
17. Nilsson, M.R., Nguyen, L.L., & Raleigh, D.P. (2001) Synthesis and purification of amyloidogenic peptides. *Anal. Biochem.*, 288, 76-82. #16355
18. Qiu, W., Gu, X., Soloshonok, V.A., Carducci, M.D., & Hruby, V.J. (2001) Stereoselective synthesis of conformationally constrained reverse turn dipeptide mimetics. *Tetrahedron Lett.*, 42, 145-148. #16181
19. Royo, M., Jimenez, J.C., Lopez-Macia, A., Giralt, E., & Albericio, F. (2001) Solid-phase synthesis of peptides containing alpha,beta-didehydroamino acids. *Eur. J. Org. Chem.*, 45-48. #16373
20. Shuker, S.B., Esterbrook, J., & Gonzalez, J. (2001) Solid-phase synthesis of a novel peptide substituted calix[4]arene. *Synlett*, 210-213. #16382
21. Aimoto, S., Hasegawa, K., Li, X. & Kawakami, T. (2000) Synthesis of phosphorylated CRE BP1(19-106) amide using a phosphopeptide thioester prepared directly by an Fmoc solid-phase method. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 82-83). Kluwer Academic Publisher, Dordrecht. #15701
22. Ajikumar, P.K., & Devaky, K.S. (2000) EGDMA-cross-linked polystyrene resin: An efficient support for gel phase peptide synthesis. *Proc. Indian Acad. Sci. -Chem. Sci.*, 112, 465-474. #15819
23. Alam, M.R., Maeda, M., & Sasaki, S. (2000) DNA-binding peptides searched from the solid-phase combinatorial library with the use of the magnetic beads attaching the target duplex DNA. *Bioorg. Med. Chem.*, 8, 465-473. #14913
24. Albericio, F. (2000) **Orthogonal protecting groups for N-amino and C-terminal carboxyl functions in solid-phase peptide synthesis.** *Biopolymers (Pept. Sci.)*, 55, 123-139. #16434
25. Albericio, F. (2000) **Orthogonal protecting groups for N alpha-amino and C-terminal carboxyl functions in solid-phase peptide synthesis.** *Biopolymers*, 55, 123-139. #16237
26. Alsina, J., Yokum, T.S., Albericio, F., & Barany, G. (2000) A modified Backbone Amide Linker (BAL) solid-phase peptide synthesis strategy accommodating prolyl, N-alkylamino acyl, or histidyl derivatives at the C-terminus. *Tetrahedron Lett.*, 41, 7277-7280. #15629

27. Alsina, J., Yokum, T.S., Albericio, F. & Barany, G. (2000) Backbone Amide Linker (BAL) methodology to accommodate C-terminal hindered, unreactive, and/or sensitive modification. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 102-103). Kluwer Academic Publisher, Dordrecht. #15707
28. Andersson, L., Blomberg, L., Flegel, M., Lepsa, L., Nilsson, B., & Verlander, M. (2000) **Large-scale synthesis of peptides. Biopolymers (Pept. Sci.)**, 55, 227-250. #16440
29. Andersson, L., Blomberg, L., Flegel, M., Lepsa, L., Nilsson, B., & Verlander, M. (2000) **Large-scale synthesis of peptides. Biopolymers**, 55, 227-250. #16238
30. Ando, S., Nakahara, Y., Ito, Y., & Ogawa, T. (2000) **Solid-phase synthesis of the glycopeptide of human glycophorin AM bearing the consecutive sialyl-T antigen. Carbohyd. Res.**, 329, 773-780. #16239
31. Anichini, B., Ricci, R., Fabbri, G., Balacco, G., Mauro, S., Triolo, A., Altamura, M., Maggi, C.A., & Quartara, L. (2000) Solid-phase synthesis of MEN 11270, a new cyclic peptide kinin B2 receptor antagonist. *J. Peptide Sci.*, 6, 612-620. #16152
32. Annis, I. & Barany, G. (2000) Alternative solid-phase reagents for formation of intramolecular sulfur-sulfur bridges in peptides under mild conditions. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 96-97). Kluwer Academic Publisher, Dordrecht. #15704
33. Antopolksky, M., & Azhayev, A. (2000) Stepwise solid-phase synthesis of peptide-oligonucleotide phosphorothioate conjugates employing Fmoc peptide chemistry. *Tetrahedron Lett.*, 41, 9113-9117. #15823
34. Arnon, R., Tarrab-Hazdai, R., & Steward, M. (2000) **A mimotope peptide-based vaccine against Schistosoma mansoni: Synthesis and characterization. Immunology**, 101, 555-562. #16245
35. Arunan, C., & Pillai, V.N.R. (2000) Synthesis of acyl carrier protein fragment 65-74 on a flexible cross-linked polystyrene support: Comparison with Merrifield resin. *Tetrahedron*, 56, 3005-3011. #14623
36. Arunan, C., Naaraj, R., & Pillai, V.N.R. (2000) Solid-phase synthesis of a modified 13-residue seminalplasmin fragment on 1,6-hexanediol diacrylate-crosslinked polystyrene support. *Peptides*, 21, 773-777. #15758
37. Balaspiri, L., Tegyei, Z., Dux, M., Jancso, G., Jozsa, R., Csernus, V., & Mess, B. (2000) Synthesis of chicken galanin and its N- and C-terminal segments, and preparation of their antisera. *Lett. Peptide Sci.*, 7, 23-26. #15431
38. Balse, P., Han, G., Hruby, V.J. & Sun, L. (2000) Diisopropylethylamine salts for protected amino acids: Direct synthesis of peptides on solid-phase. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 80-81). Kluwer Academic Publisher, Dordrecht. #15700
39. Balse, P.M., Kim, H.J., Han, G., & Hruby, V.J. (2000) Evaluation of new base-labile 2-(4-nitrophenylsulfonyl)ethoxycarbonyl (Nsc)-amino acids for solid-phase peptide synthesis. *J. Pept. Res.*, 56, 70-79. #15444
40. Baumann, M., Dietrich, U., Koenigs, C. & Griesinger, C. (2000) Combinatorial peptide synthesis, NMR-aided screening and testing of low molecular weight RNA-ligands. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 170-171). Kluwer Academic Publisher, Dordrecht. #15711
41. Bechinger, B. (2000) Biophysical investigations of membrane perturbations by polypeptides using solid-state NMR spectroscopy. *Molecular Membrane Biology*, 17, 135-142. #15832
42. Beebe, K.D., Wang, P., Arabaci, G., & Pei, D.H. (2000) Determination of the binding specificity of the SH2 domains of protein tyrosine phosphatase SHP-1 through the screening of a combinatorial phosphotyrosyl peptide library. *Biochemistry*, 39, 13251-13260. #15833
43. Beligere, G.S., & Dawson, P.E. (2000) **Design, synthesis, and characterization of 4-ester CI2, a model for backbone hydrogen bonding in protein alpha-helices. J. Amer. Chem. Soc.**, 122, 12079-12082. #16250
44. Besser, D., Muller, B., Agricola, I., & Reissmann, S. (2000) Synthesis of differentially protected N-acylated reduced pseudodipeptides as building units for backbone cyclic peptides. *J. Peptide Sci.*, 6, 130-138. #14943
45. Besser, D., Muller, B., Kleinwachter, P., Greiner, G., Seyfarth, L., Steinmetzer, T., Arad, O., & Reissmann, S. (2000) Synthesis

and characterization of octapeptide somatostatin analogues with backbone cyclization: Comparison of different strategies, biological activities and enzymatic stabilities. *Journal fur Praktische Chemie-Practical Applications and Applied Chemistry*, 342, 537-545. #15837

46. Bibbs, L., Ambulos, N.P., Kates, S.A., Khatri, A., Medzihradzky, K.F., Osapay, G. & Weintraub, S.T. (2000) Strategies for the synthesis of labeled peptides. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 113-114). Kluwer Academic Publisher, Dordrecht. #15710
47. Bishop, B.M., McCafferty, D.G., & Erickson, B.W. (2000) 4'-Aminomethyl-2,2'-bipyridyl-4-carboxylic acid (Abc) and related derivatives: Novel bipyridine amino acids for the solid-phase incorporation of a metal coordination site within a peptide backbone. *Tetrahedron*, 56, 4629-4638. #14946
48. Blaskovich, M.A., Boatman, P.D., Cao, B., Eguchi, M., Kim, H.O., Lee, M., Little, T., Mathew, F., McCann, I., Mehl, C., Nakanishi, H., Nelson, S., Nguyen, M., Ogbu, C., Qabar, M.N., Ruan, F., Shea, J.P., Stasiak, M., Urban, J. & Kahn, M. (2000) Highly efficient and versatile construction of secondary structure peptide mimetic libraries: Application to biology and drug development. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 191-193). Kluwer Academic Publisher, Dordrecht. #15726
49. Blondelle, S.E., Crooks, E., Alique, R., Agell, N., Bachs, O., Esteve, V., Tejero, R., Celda, B., Pastor, M.T., & Perez-Paya, E. (2000) Novel, potent calmodulin antagonists derived from an all-D hexapeptide combinatorial library that inhibit in vivo cell proliferation: Activity and structural characterization. *J. Pept. Res.*, 55, 148-162. #14266
50. Blondelle, S.E., Esteve, V., Celda, B., Pastor, M.T., & Perez-Paya, E. (2000) Influence of the hydrophylic face on the folding ability and stability of a-helix bundles: Relevance to the peptide catalytic activity. *J. Pept. Res.*, 56, 121-131. #15789
51. Bonner, G.G., Davis, P., Stropova, D., Edsall, S., Yamamura, H.I., Porreca, F., & Hruby, V.J. (2000) Opiate aromatic pharmacophore structure-activity relationships in CTAP analogues determined by topographical bias, two-dimensional NMR, and biological activity assays. *J. Med. Chem.*, 43, 569-580. #14952
52. Bordusa, F. (2000) Nonconventional amide bond formation catalysis: Programming enzyme specificity with substrate mimetics. *Braz. J. Med. Biol. Res.*, 33, 469-485. #14953
53. Borgia, J.A., Oegema, T.R.Jr. & Fields, G.B. (2000) Synthesis and application of a glycoprotein derived from the proteoglycan linkage structure. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 773-774). Kluwer Academic Publisher, Dordrecht. #15751
54. Bourel, L., Carion, O., Gras-Masse, H., & Melnyk, O. (2000) The deprotection of Lys(Mtt) revisited. *J. Peptide Sci.*, 6, 264-270. #14956
55. Bourne, G.T., McGeary, R.P., Golding, S.W., Meutermans, W.D.F., Alewood, P.F. & Smythe, M.L. (2000) An evaluation of a novel safety catch linker for development of cyclic peptide libraries. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 98-99). Kluwer Academic Publisher, Dordrecht. #15705
56. Boykins, R.A., Joshi, M., Syin, C., Dhawan, S., & Nakhshi, H. (2000) Synthesis and construction of a novel multiple peptide conjugate system: strategy for a subunit vaccine design. *Peptides*, 21, 9-17. #14958
57. Boysen, R.I., & Hearn, M.T.W. (2000) Direct characterisation by electrospray ionisation mass spectroscopy of mercuro-polypeptide complexes after deprotection of acetamidomethyl groups from protected cysteine residues of synthetic polypeptides. *J. Biochem. Biophys. Meth.*, 45, 157-168. #15846
58. Bozo, B., Farkas, J., Toth, G., Wolleman, M., Szucs, M., & Benyhe, S. (2000) Receptor binding and G-protein activation by new Met(5)-enkephalin-Arg(6)-Phe(7) derived peptides. *Life Sci.*, 66, 1241-1251. #14959
59. Brask, J., & Jensen, K.J. (2000) Carbopeptides: Chemoselective ligation of peptide aldehydes to an aminoxy-functionalized D-galactose template. *J. Peptide Sci.*, 6, 290-299. #15448
60. Braslau, R., Axon, J.R., & Lee, B. (2000) Synthesis of N-hydroxy peptides: Chemical ligation of O-acyl hydroxamic acids. *Organic Letters*, 2, 1399-1401. #14964
61. Buchardt, J., & Meldal, M. (2000) Novel methodology for the solid-phase synthesis of phosphinic peptides. *Journal of the Chemical Society-Perkin Transaction 1*, 3306-3310. #15852

62. Bui, C.T., Ercole, F., Pham, Y., Campbell, R., Rasoul, F.A., Maeji, N.J., & Ede, N.J. (2000) Improving the performance of an acid-labile 4-hydroxymethyl phenoxyacetic acid (HMO) linker on resin and SynPhaseTM grafted solid-supports. *J. Peptide Sci.*, 6, 534-538. #15756

63. Bui, C.T., Bray, A.M., Nguyen, T., Ercole, F., Rasoul, F., Sampson, W., & Maeji, N.J. (2000) Acetophenone-based linker for solid-phase peptide synthesis. *J. Peptide Sci.*, 6, 49-56. #14310

64. Bui, C.T., Bray, A.M., Nguyen, T., Ercole, F., & Maeji, N.J. (2000) Solid phase synthesis of C-terminal peptide amides: Development of a new aminoethyl-polystyrene linker on the MultipinTM solid support. *J. Peptide Sci.*, 6, 243-250. #14408

65. Burgess, K. (2000) Solid-phase organic synthesis. John Wiley & Sons, New York. ISBN 0471318256 #14304

66. Calcagni, A., Gavuzzo, E., Lucente, G., Mazza, F., Morera, E., Paradisi, M.P., & Rossi, D. (2000) Peptides containing the sulfonamide junction. 2. Structure and conformation of Z-Tau-Pro-D-Phe-NH*i*Pr. *Biopolymers*, 54, 379-387. #15855

67. Camarero, J.A., Adeva, A., & Muir, T.W. (2000) 3-Thiopropionic acid as a highly versatile multidetachable thioester resin linker. *Lett. Peptide Sci.*, 7, 17-21. #15430

68. Cammish, L.E., & Kates, S.A. (2000) Instrumentation for automated solid phase peptide synthesis. *Fmoc Solid Phase Peptide Synthesis: A Practical Approach*, 222, 277-302. #15857

69. Carlson, C.B., & Beal, P.A. (2000) Solid-phase synthesis of acridine-based threading intercalator peptides. *Bioorg. Med. Chem. Lett.*, 10, 1979-1982. #15764

70. Carreno, C., Mendez, M.E., Kim, Y.D., Kim, H.J., Kates, S.A., Andreu, D., & Albericio, F. (2000) Nsc and Fmoc Na-amino protection for solid-phase peptide synthesis: A parallel study. *J. Pept. Res.*, 56, 63-69. #15443

71. Caverio, M., Hobbs, A., Madge, D., Motherwell, W.B., Selwood, D., & Potier, P. (2000) Synthesis and biological evaluation of enantiopure thionitrites: The solid-phase synthesis and nitrosation of D-glutathione as a molecular probe. *Bioorg. Med. Chem. Lett.*, 10, 641-644. #14632

72. Cerovsky, V., & Bordusa, F. (2000) Protease-catalyzed fragment condensation via substrate mimetic strategy: A useful combination of solid-phase peptide synthesis with enzymatic methods. *J. Pept. Res.*, 55, 325-329. #14363

73. Chetyrkina, S., Estieu-Gionnet, K., Lain, G., Bayle, M., & Deleris, G. (2000) Synthesis of N-Fmoc-4-[(diethylphosphono)-2',2'-difluoro-1'-hydroxyethyl]phenylalanine, a novel phosphotyrosyl mimic for the preparation of signal transduction inhibitory peptides. *Tetrahedron Lett.*, 41, 1923-1926. #14347

74. Cho, J.K., Park, B.D., & Lee, Y.S. (2000) A novel core-shell type polymer support for solid-phase peptide synthesis. *Tetrahedron Lett.*, 41, 7481-7485. #15861

75. Cilli, E.M., Jubilut, G.N., Ribeiro, S.C.F., Oliveira, E., & Nakai, C.R. (2000) Importance of the solvation degree of peptide-resin beads for amine groups determination by the picric acid method. *J. Braz. Chem. Soc.*, 11, 474-478. #15862

76. Clippingdale, A.B., Barrow, C.J., & Wade, J.D. (2000) Peptide thioester preparation by Fmoc solid phase peptide synthesis for use in native chemical ligation. *J. Peptide Sci.*, 6, 225-234. #14405

77. Conde-Frieboes, K., Andersen, S., & Breinholt, J. (2000) Synthesis of symmetrical dimeric N,N'-linked peptides on solid support by olefin metathesis. *Tetrahedron Lett.*, 41, 9153-9156. #16159

78. Cotton, G.J., & Muir, T.W. (2000) Generation of a dual-labeled fluorescence biosensor for Crk-II phosphorylation using solid-phase expressed protein ligation. *Chem. Biol.*, 7, 253-261. #15864

79. Cruz, L.J., Quintana, D., Iglesias, E., Garcia, Y., Huerta, V., Garay, H.E., Duarte, C., & Reyes, O. (2000) Immunogenicity comparison of a multi-antigenic peptide bearing V3 sequences of the human immunodeficiency virus type 1 with TAB9 protein in mice. *J. Peptide Sci.*, 6, 217-224. #14402

80. Cudic, M., Wade, J.D., & Otvos, L.Jr. (2000) Convenient synthesis of a head-to-tail cyclic peptide containing an expanded ring. *Tetrahedron Lett.*, 41, 4527-4531. #14594

81. Dai, X., Su, Z., & Liu, J.O. (2000) An improved synthesis of a selective α V β 3-integrin antagonist cyclo(-RGDfK-). *Tetrahedron Lett.*, 41, 6295-6298. #15531
82. Dal, X.D., Su, Z., & Liu, J.O. (2000) An improved synthesis of a selective α (v) β (3)-integrin antagonist cyclo(-RGDfK-). *Tetrahedron Lett.*, 41, 6295-6298. #15868
83. Dankwardt, S.M., Billedeau, R.J., Lawley, L.K., Abbot, S.C., Martin, R.L., Chan, C.S., Van Wart, H.E., & Walker, K.A.M. (2000) Solid-phase synthesis of di- and tripeptidic hydroxamic acids as inhibitors of procollagen C-proteinase. *Bioorg. Med. Chem. Lett.*, 10, 2513-2516. #15870
84. Denis, B., & Trifilieff, E. (2000) Synthesis of palmitoyl-thioester T-cell epitopes of myelin proteolipid protein (PLP). Comparison of two thiol protecting groups (StBu and Mmt) for on-resin-acylation. *J. Peptide Sci.*, 6, 372-377. #15450
85. Dionyssopoulou, H., Mouzaki, A., Slootstra, J., Puijk, W., Meloen, R., Cordopatis, P., & Sotiropoulou, G. (2000) Synthetic peptides as putative therapeutic agents in transplantation medicine: Application of PEPSCAN to the identification of functional sequences in the extracellular domain of the interleukin-2 receptor beta chain (IL-2R beta). *J. Immunol. Method*, 241, 83-95. #15882
86. Dolence, E.K., Dolence, J.M., & Poulter, C.D. (2000) Solid-phase synthesis of a farnesylated CaaX peptide library: Inhibitors of the Ras CaaX endoprotease. *Journal of Combinatorial Chemistry*, 2, 522-536. #15605
87. Drakopoulou, E., Uray, K., Mezo, G., Price, M.R., Vita, C., & Hudecz, F. (2000) Synthesis and antibody recognition of mucin 1 (MUC1)-a-conotoxin chimera. *J. Peptide Sci.*, 6, 175-185. #14361
88. Dufau, I., & Mazarguil, H. (2000) Design of a fluorescent amino acid derivative usable in peptide synthesis. *Tetrahedron Lett.*, 41, 6063-6066. #15517
89. Dutta, A.S., Gormley, J.J., Coath, M., Hassall, L., Hayward, C.F., Gellert, P.R., Kittley, R.S., Alcock, P.J., Ferguson, R., Halterman, T., Jamieson, A., Moors, J.A., Moores, J.M., Rees, A., Wood, L.J., Reilly, C.F., & Haworth, D. (2000) Potent cyclic peptide inhibitors of VLA-4 (a4b1 integrin)-mediated cell adhesion. Discovery of compounds like cyclo(MePhe-Leu-Asp-Val-D-Arg-D-Arg) (ZD7349) compatible with depot formulation. *J. Peptide Sci.*, 6, 398-412. #15453
90. Dutta, A.S., Crowther, M., Gormley, J.J., Hassall, L., Hayward, C.F., Gellert, P.R., Kittley, R.S., Alcock, P.J., Jamieson, A., Moores, J.M., Rees, A., Wood, L.J., Reilly, C.F., & Haworth, D. (2000) Potent cyclic monomeric and dimeric peptide inhibitors of VLA-4 (alpha(4)beta(1) integrin)-mediated cell adhesion based on the Ile-Leu-Asp-Val tetrapeptide. *J. Peptide Sci.*, 6, 321-341. #15892
91. Ede, N.J., Eagle, S.N., Wickham, G., Bray, A.M., Warne, B., Shoemaker, K., & Rosenberg, S. (2000) Solid phase synthesis of peptide aldehyde protease inhibitors. Probing the proteolytic sites of hepatitis C virus polyprotein. *J. Peptide Sci.*, 6, 11-18. #13956
92. Egleton, R.D., Mitchell, S.A., Huber, J.D., Janders, J., Stropova, D., Polt, R., Yamamura, H.I., Hruby, V.J., & Davis, T.P. (2000) Improved bioavailability to the brain of glycosylated Met-enkephalin analogs. *Brain Res.*, 881, 37-46. #15894
93. El-Agnaf, O.M.A., Mahil, D.S., Patel, B.P., & Austen, B.M. (2000) Oligomerization and toxicity of beta-amyloid-42 implicated in Alzheimer's disease. *Biochem. Biophys. Res. Commun.*, 273, 1003-1007. #15895
94. Falb, E., Yechezkel, T., Salitra, Y., Gellerman, G., Muller, D. & Gilon, C. (2000) In situ generation of Fmoc amino acid chlorides for extremely difficult couplings to sterically hindered secondary amines in solid-phase peptide synthesis. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 55-57). Kluwer Academic Publisher, Dordrecht. #15694
95. Falchi, A., Giacomelli, G., Porcheddu, A., & Taddei, M. (2000) 4-(4,6-Dimethoxy[1,3,5]triazin-2-yl)-4-methyl-morpholinium chloride (DMTMM): A valuable alternative to PyBOP for solid phase peptide synthesis. *Synlett*, 275-277. #15026
96. Fields, G.B., Tam, J.P., & Barany, G. (2000) *Peptides for the New Millennium*. Kluwer Academic Publisher, Dordrecht. ISBN 0792364457 #15688
97. Fiertek, D., Gromowska, M., Andersen, A.R., Hansen, P.H., Majewski, T., & Izdebski, J. (2000) Primary structure of fox (*Vulpes vulpes*) proinsulin based on sequence studies of pancreatic peptides and cDNA. *J. Peptide Sci.*, 6, 413-419. #15454
98. Freund, E., Vitali, F., Linden, A., & Robinson, J.A. (2000) Solid-phase synthesis using (allyloxy)carbonyl(Alloc) chemistry of a putative heptapeptide intermediate in vancomycin biosynthesis containing m-chloro-3-hydroxytyrosine. *Helv. Chim. Acta*, 83,

2572-2579. #15902

99. Fruchart, J.S., Grandjean, C., Bonnet, D., Rommens, C., Gras-Masse, H. & Melnyk, O. (2000) A new tartaric acid-based linker for the synthesis of C-terminal peptide a-oxo-aldehydes. In G.B. Fields, J.P. Tam & G. Barany (Eds.), Peptides for the New Millennium. (pp. 104-106). Kluwer Academic Publisher, Dordrecht. #15708

100. Fruchart, J.S., Lippens, G., Warrass, R., Seetharaman, C., Dhalluin, C., & Boutillon, C. (2000) The Chemical Shift Index method applied to resin-bound peptides. *J. Pept. Res.*, 56, 346-351. #16286

101. Ghosh, A.K., & Fan, E. (2000) A novel method for sequence independent incorporation of activated/protected cysteine in Fmoc solid phase peptide synthesis. *Tetrahedron Lett.*, 41, 165-168. #13884

102. Goetz, M., Rusconi, F., Belghazi, M., Schmitter, J.M., & Dufourc, E.J. (2000) Purification of the c-erbB2/neu membrane-spanning segment: A hydrophobic challenge. *Journal of Chromatography B*, 737, 55-61. #13985

103. Goldstein, A.S., & Gelb, M.H. (2000) An alternate preparation of thioester resin linkers for solid-phase synthesis of peptide C-terminal thioacids. *Tetrahedron Lett.*, 41, 2797-2800. #14539

104. Gordon, L.M., Lee, K.Y.C., Lipp, M.M., Zasadzinski, J.A., Walther, F.J., Sherman, M.A., & Waring, A.J. (2000) Conformational mapping of the N-terminal segment of surfactant protein B in lipid using ¹³C-enhanced Fourier transform infrared spectroscopy. *J. Pept. Res.*, 55, 330-347. #14364

105. Gottschling, D., Seliger, H., Tarrason, G., Piulats, J., Wiersma, M., & Eritja, R. (2000) Synthesis of peptide nucleic acid-peptide chimeras carrying the c-myc tag-sequence. *Lett. Peptide Sci.*, 7, 35-39. #15433

106. Groth, T., Meldal, M. & Bock, K. (2000) Backbone amide protection in solid-phase synthesis of peptide isosters derived from N-terminal α -aldehydes. In G.B. Fields, J.P. Tam & G. Barany (Eds.), Peptides for the New Millennium. (pp. 146-147). Kluwer Academic Publisher, Dordrecht. #15712

107. Gu, C.G., Tsaprailis, G., Breci, L., & Wysocki, V.H. (2000) Selective gas-phase cleavage at the peptide bond terminal to aspartic acid in fixed-charge derivatives of asp-containing peptides. *Anal. Chem.*, 72, 5804-5813. #16294

108. Guichard, G., Semetey, V., Didierjean, C., Aubry, A., Rodriguez, M. & Briand, J.P. (2000) An efficient preparation of O-succinimidyl carbamate derivatives from N-protected α -amino acids: Application to the synthesis of urea containing pseudopeptides and oligoureas. In G.B. Fields, J.P. Tam & G. Barany (Eds.), Peptides for the New Millennium. (pp. 148-149). Kluwer Academic Publisher, Dordrecht. #15713

109. Guillaumie, F., Kelly, N.M., Kappel, J.C., Barany, G. & Jensen, K.J. (2000) Solid-phase synthesis of peptide aldehydes by a Backbone Amide Linker (BAL) strategy. In G.B. Fields, J.P. Tam & G. Barany (Eds.), Peptides for the New Millennium. (pp. 100-101). Kluwer Academic Publisher, Dordrecht. #15706

110. Guillaumie, F., Kappel, J.C., Kelly, N.M., Barany, G., & Jensen, K.J. (2000) Solid-phase synthesis of C-terminal peptide aldehydes from amino acetals anchored to a backbone amide linker (BAL) handle. *Tetrahedron Lett.*, 41, 6131-6135. #15518

111. Gururaja, T.L., Narasimhamurthy, S., Payan, D.G., & Anderson, D.C. (2000) A novel artificial loop scaffold for the noncovalent constraint of peptides. *Chem. Biol.*, 7, 515-527. #15921

112. Hargittai, B., Annis, I., & Barany, G. (2000) Application of solid-phase Ellman's reagent for preparation of disulfide-paired isomers of α -conotoxin SI. *Lett. Peptide Sci.*, 7, 47-52. #15434

113. Hargittai, B., Annis, I. & Barany, G. (2000) Application of solid-phase Ellman's reagent for preparation of disulfide-paired isomers of α -conotoxin SI. In G.B. Fields, J.P. Tam & G. Barany (Eds.), Peptides for the New Millennium. (pp. 94-95). Kluwer Academic Publisher, Dordrecht. #15703

114. Harris, J.L., Backes, B.J., Leonetti, F., Mahrus, S., Ellman, J.A., & Craik, C.S. (2000) Rapid and general profiling of protease specificity by using combinatorial fluorogenic substrate libraries. *Proc. Natl. Acad. Sci. USA*, 97, 7754-7759. #15073

115. Heinonen, P., Rosenberg, J., & Lonnberg, H. (2000) Synthesis of achiral alpha,alpha-bis(aminomethyl)-beta-alanines and their use in the preparation of branched beta-peptide conjugates of N-2-alkyl-1,2,3,4-tetrahydroisoquinolines on solid support. *Eur. J. Org. Chem.*, 3647-3652. #15926

116. Hernandez, J.F., Gagnon, J., Chiche, L., Nguyen, T.M., Andrieu, J.P., Heitz, A., Hong, T.T., Pham, T.T.C., & Nguyen, D.L. (2000) Squash trypsin inhibitors from *Momordica cochinchinensis* exhibit an atypical macrocyclic structure. *Biochemistry*, 39, 5722-5730. #15083

117. Hernandez, M., Pozo, L., Gomez, I., & Melchor, A. (2000) Chimeric synthetic peptide as antigen for immunodiagnosis of HIV-1 infection. *Biochem. Biophys. Res. Commun.*, 272, 259-262. #15084

118. Hilpert, K., Hansen, G., Wessner, H., Schneider-Mergener, J., & Hohne, W. (2000) Characterizing and optimizing protease/peptide inhibitor interactions, a new application for spot synthesis. *J. Biochem. Tokyo*, 128, 1051-1057. #16299

119. Hlavacek, J., Marcova, R., Budesinsky, M., & Slaninova, J. (2000) 1-Deamino-1(15)-carba and -dicarba analogues of endothelin-1. *Collect. Czech. Chem. Commun.*, 65, 407-424. #15088

120. Holm, A., Jorgensen, R.M., Ostergaard, S., & Theisen, M. (2000) Ligand-presenting assembly: A method for C- and N-terminal antigen presentation. *J. Pept. Res.*, 56, 105-113. #15447

121. Howe, J., Quibell, M., & Johnson, T. (2000) A new generation of reversible backbone-amide protection for the solid phase synthesis of difficult sequences. *Tetrahedron Lett.*, 41, 3997-4001. #14563

122. Hu, B.H., & Messersmith, P.B. (2000) Protection of 3,4-dihydroxyphenylalanine (DOPA) for Fmoc solid-phase peptide synthesis. *Tetrahedron Lett.*, 41, 5795-5798. #15423

123. Ishii, A., Hojo, H., Kobayashi, A., Nakamura, K., Nakahara, Y., & Ito, Y. (2000) A facile silyl linker strategy for the solid-phase synthesis of protected glycopeptide: Synthesis of an N-terminal fragment of IL-2 (1-10). *Tetrahedron*, 56, 6235-6243. #15773

124. Ius, A., Bacigalupo, M.A., Longhi, R., & Meroni, G. (2000) Selectively conjugated melittins for liposome time-resolved fluoroimmunoassay of theophylline in serum. *Fresenius J. Anal. Chem.*, 366, 869-872. #15112

125. Jensen, K.J., & Barany, G. (2000) Carbopeptides: Carbohydrates as potential templates for de novo design of protein models. *J. Pept. Res.*, 56, 3-11. #15119

126. Jiaang, W.T., Tseng, P.H., & Chen, S.T. (2000) Facile solid phase synthesis of YEE(ah-GalNAc)(3), a ligand with known high affinity for the asialoglycoprotein receptor. *Synlett*, 797-800. #15123

127. Jiaang, W.T., Chang, M.Y., Tseng, P.H., & Chen, S.T. (2000) A concise synthesis of the O-glycosylated amino acid building block; using phenyl selenoglycoside as a glycosyl donor. *Tetrahedron Lett.*, 41, 3127-3130. #15122

128. Johansson, A., Akerblom, E., Ersmark, K., Lindeberg, G., & Hallberg, A. (2000) An improved procedure for N- to C-directed (inverse) solid-phase peptide synthesis. *Journal of Combinatorial Chemistry*, 2, 496-507. #15602

129. Jones, R.C.F., & Dickson, J. (2000) An amidazoline pseudodipeptide suitable for solid phase peptide synthesis. *J. Peptide Sci.*, 6, 621-624. #16153

130. Karlstrom, A., Rosenthal, K., & Unden, A. (2000) Study of the alkylation propensity of cations generated by acidolytic cleavage of protecting groups in Boc chemistry. *J. Pept. Res.*, 55, 36-40. #14033

131. Kempe, M. (2000) Oxytocin receptor mimetics prepared by molecular imprinting. *Lett. Peptide Sci.*, 7, 27-33. #15432

132. Kennedy, K.J., Lundquist, J.T.IV., Simandan, T.L., Kokko, K.P., Beeson, C.C., & Dix, T.A. (2000) Design rationale, synthesis, and characterization of non-natural analogs of the cationic amino acids arginine and lysine. *J. Pept. Res.*, 55, 348-358. #14365

133. Kim, H.J. & Samukov, V.V. (2000) Na-2-(4-Nitrophenylsulfonyl)ethoxycarbonyl (Nsc) as an amino-protecting group and its application for peptide synthesis. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 50-52). Kluwer Academic Publisher, Dordrecht. #15692

134. Klugmann, K., Karawajczyk, B., Kunikowska, D., Glosnicka, R., & Mackiewicz, Z. (2000) Synthesis of hepatitis C virus protein fragments and evaluation of their immunogenicity. Part II. *Polish J. Chem.*, 74, 1085-1090. #15955

135. Koeller, K.M., Smith, M.E.B., & Wong, C.H. (2000) Tyrosine sulfation on a PSGL-1 glycopeptide influences the reactivity of glycosyltransferases responsible for synthesis of the attached O-glycan. *J. Amer. Chem. Soc.*, 122, 742-743. #15146

136. Koeller, K.M., Smith, M.E.B., & Wong, C.H. (2000) Chemoenzymatic synthesis of PSGL-1 glycopeptides: Sulfation on tyrosine affects glycosyltransferase-catalyzed synthesis of the O-glycan. *Bioorg. Med. Chem.*, 8, 1017-1025. #15145

137. Komba, S., Werdelin, O., Jensen, T., & Meldal, M. (2000) Synthesis of tumor associated sialyl-T-glycopeptides and their immunogenicity. *J. Peptide Sci.*, 6, 585-593. #16150

138. Korol'kov, V.I., Platonova, G.A., Azanova, V.V., Tennikova, T.B., & Vlasov, G.P. (2000) In situ preparation of peptidylated polymers as ready-to-use adsorbents for rapid immunoaffinity chromatography. *Lett. Peptide Sci.*, 7, 53-61. #15435

139. Kudryavtseva, E.V., Sidorova, M.V., Ovchinnikov, M.V., & Bespalova, Z.D. (2000) Hydrogen peroxide for disulfide bridge formation in methionine-containing peptides. *J. Peptide Sci.*, 6, 208-216. #14403

140. Kumar, K.S., Pillai, V.N.R., & Das, M.R. (2000) Syntheses of four peptides from the immunodominant region of hepatitis C viral pathogens using PS-TTEGDA support for the investigation of HCV infection in human blood. *J. Pept. Res.*, 56, 88-96. #15446

141. Laczko, I., Vas, E., Toth, G.K., Marcinovits, I., Kiss, M., Husz, S., & Molnar, J. (2000) Conformational consequences of coupling bullous pemphigoid antigenic peptides to glutathione-S-transferase and their diagnostic significance. *J. Peptide Sci.*, 6, 378-386. #15451

142. Lauer-Fields, J.L., Tuzinski, K.A., Shimokawa, K., Nagase, H., & Fields, G.B. (2000) Hydrolysis of triple-helical collagen peptide models by matrix metalloproteinases. *Journal of Biological Chemistry*, 275, 13282-13290. #15157

143. Lawrence, S.A. (2000) Hydrazine carboxylate t-butylester (BOC-hydrazide): Its properties and applications. *Chim. Oggi*, 18, 20-24. #14573

144. Lebl, M., Ma, J., Pires, J., Dooley, C. & Houghten, R.A. (2000) Rapid parallel synthesis of 584 betides, peptides composed largely of beta-amino acids with side-chains not found in natural peptides. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 174-175). Kluwer Academic Publisher, Dordrecht. #15719

145. Lebl, M. (2000) New technique for high-throughput synthesis of peptides, peptidomimetics and nonpeptide small organic molecule arrays. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 164-166). Kluwer Academic Publisher, Dordrecht. #15715

146. Lee, Y.S., Lee, H.J., Lee, D. & Kim, H.J. (2000) Nsc- and Fmoc-amino acids for automated solid-phase peptide synthesis: Comparative study of the stability in various conditions. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 53-54). Kluwer Academic Publisher, Dordrecht. #15693

147. Leelasvatanakij, L., & Aldrich, J.V. (2000) A solid-phase synthetic strategy for the preparation of peptide-based affinity labels: Synthesis of dynorphin A analogs. *J. Pept. Res.*, 56, 80-87. #15445

148. Li, P., & Xu, J.C. (2000) HOBt and HOAt-derived immonium salts: New and highly efficient coupling reagents for peptide synthesis. *Tetrahedron Lett.*, 41, 721-724. #14229

149. Li, P., & Xu, J.C. (2000) (1H-Benzotriazol-1-yloxy)-N,N-dimethylmethaniminium hexachloroantimonate (BOMI), a novel coupling reagent for solution and solid-phase peptide synthesis. *J. Pept. Res.*, 55, 110-119. #14265

150. Li, P., & Xu, J.C. (2000) Total synthesis of cyclosporin O both in solution and in the solid phase using novel thiazolium-, immonium-, and pyridinium-type coupling reagents: BEMT, BDMP, and BEP. *J. Org. Chem.*, 65, 2951-2958. #15777

151. Li, Q., Moutiez, M., Charbonnier, J.B., Vaudry, K., Menez, A., Quemeneur, E., & Dugave, C. (2000) Design of a Gag pentapeptide analogue that binds human cyclophilin A more efficiently than the entire capsid protein: New insights for the development of novel anti-HIV-1 drugs. *J. Med. Chem.*, 43, 1770-1779. #15171

152. Li, W.R., Lin, S.T., & Yang, J.H. (2000) An expedient N-terminal attachment methodology for the solid phase peptide synthesis. *Synlett*, 1608-1612. #15972

153. Li, X., Zhang, L., Hall, S.E., & Tam, J.P. (2000) A new ligation method for N-terminal tryptophan-containing peptides using the Pictet-Spengler reaction. *Tetrahedron Lett.*, 41, 4069-4073. #14591

154. Licha, K., Bhargava, S., Rheinlander, C., Becker, A., Schneider-Mergener, J., & Volkmer-Engert, R. (2000) Highly parallel nano-

synthesis of cleavable peptide-dye conjugates on cellulose membranes. *Tetrahedron Lett.*, 41, 1711-1715. #14337

155. Liu, C.F., Rao, C. & Tam, J.P. (2000) Use of orthogonal ligation methods for the synthesis of a hetero peptide dendrimer. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 118-119). Kluwer Academic Publisher, Dordrecht. #15711

156. Liu, G., Fan, Y., Zhao, D., Zhao, Z.G. & Lam, K.S. (2000) Development of novel peptide antibiotics for vancomycin resistant infection using the "one-bead, one-compound" combinatorial library method. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 736-737). Kluwer Academic Publisher, Dordrecht. #15748

157. Loidl, G., Musiol, H.J., Groll, M., Huber, R., & Moroder, L. (2000) Synthesis of bivalent inhibitors of eucaryotic proteasomes. *J. Peptide Sci.*, 6, 36-46. #14062

158. Malkar, N.B., Lauer-Fields, J.L., & Fields, G.B. (2000) Convenient synthesis of glycosylated hydroxylysine derivatives for use in solid-phase peptide synthesis. *Tetrahedron Lett.*, 41, 1137-1140. #14267

159. Malkinson, J.P., Falconer, R.A., & Toth, I. (2000) Synthesis of C-terminal glycopeptides from resin-bound glycosyl azides via a modified Staudinger reaction. *J. Org. Chem.*, 65, 5249-5252. #15779

160. Marastoni, M., Bazzaro, M., Gavioli, R., Micheletti, F., Traniello, S., & Tomatis, R. (2000) Design of dimeric peptides obtained from a subdominant Epstein-Barr virus LMP2-derived epitope. *Eur. J. Med. Chem.*, 35, 593-598. #15780

161. Mathieu, M.N., Wade, J.D., Tan, Y.Y., Summers, R.J., & Tregear, G.W. (2000) Novel strategy for the synthesis of template-assembled analogues of rat relaxin. *J. Peptide Sci.*, 6, 235-242. #14407

162. Matsumura, S., Sakamoto, S., Ueno, A., & Mihara, H. (2000) Construction of alpha-helix peptides with beta-cyclodextrin and dansyl units and their conformational and molecular sensing properties. *Chem. Eur. J.*, 6, 1781-1788. #15200

163. Mayo, K.H. (2000) Recent advances in the design and construction of synthetic peptides: For the love of basics or just for the technology of it. *Trends Biotech.*, 18, 212-217. #15203

164. McBride, J.D., Freeman, H.N., & Leatherbarrow, R.J. (2000) Identification of chymotrypsin inhibitors from a second-generation template assisted combinatorial peptide library. *J. Peptide Sci.*, 6, 446-452. #15611

165. McMurray, J.S., Khabashesku, O., Birtwistle, J.S., & Wang, W. (2000) Convenient preparation of 4-(tetrazol-5-yl)-phenylalanine for use in Fmoc-based solid-phase peptide synthesis. *Tetrahedron Lett.*, 41, 6555-6558. #15524

166. McNamara, J.F., Lombardo, H., Pillai, S.K., Jensen, I., Albericio, F., & Kates, S.A. (2000) An efficient solid-phase strategy for the construction of chemokines. *J. Peptide Sci.*, 6, 512-518. #15755

167. Melnyk, O., Fehrentz, J.A., Martinez, J., & Gras-Masse, H. (2000) **Functionalization of peptides and proteins by aldehyde or keto groups.** *Biopolymers (Pept. Sci.)*, 55, 165-186. #16436

168. Mergler, M., Dick, F., Gosteli, J., & Nyfeler, R. (2000) Protected peptide p-nitroanilides by solid-phase synthesis. *Lett. Peptide Sci.*, 7, 1-7. #15429

169. Merrifield, B., Barany, G., Deber, C.M., Goodman, M., Hodges, R.S., Hruby, V.J., Muir, T.W., Offord, R., Spatola, A.F., Veber, D.F. & Fields, G.B. (2000) Perspectives for the new peptide millennium. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 797-804). Kluwer Academic Publisher, Dordrecht. #15754

170. Meutermans, W.D.F., Golding, S.W., Bourne, G.T., Miranda, L.P., Dooley, M.J., Alewood, P.F. & Smythe, M.L. (2000) Synthesis of small cyclic peptides: An auxiliary approach to address the "difficult cyclization" problem. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 183-185). Kluwer Academic Publisher, Dordrecht. #15723

171. Miao, Z.W., & Tam, J.P. (2000) Dehydropeptides from orthogonal ligation of unprotected peptides. *Organic Letters*, 2, 3711-3713. #16003

172. Micklatcher, C.L., Lutgring, R.A. & Chmielewski, J. (2000) Synthetic steps toward de novo designed catalytic five helix bundle proteins. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 496-497). Kluwer Academic Publisher, Dordrecht. #15742

173. Miranda, L.P., & Alewood, P.F. (2000) Challenges for protein chemical synthesis in the 21st century: Bringing genomics and proteomics. *Biopolymers (Pept. Sci.)*, 55, 217-226. #16439

174. Miranda, L.P., Meutermans, W.D.F., Smythe, M.L., & Alewood, P.F. (2000) Activated O->N acyl transfer auxiliary: Efficient amide-backbone substitution of hindered "difficult" peptides. *J. Org. Chem.*, 65, 5460-5468. #16006

175. Monnee, M.C.F., Marijne, M.F., Brouwer, A.J., & Liskamp, R.M.J. (2000) A practical solid phase synthesis of oligopeptidolsulfonamide foldamers. *Tetrahedron Lett.*, 41, 7991-7995. #15640

176. Moraes, C.M., Bemquerer, M.P., & Miranda, M.T.M. (2000) Solvolysis and aminolysis on peptidyl-Kaiser oxime resin assisted by Ca²⁺ and Eu³⁺: A mild procedure to prepare α-methyl and -ethyl esters of protected peptides. *J. Pept. Res.*, 55, 279-288. #14648

177. Nishiuchi, Y., Nishio, H., Inui, T., Bodai, J., & Kimura, T. (2000) Combined solid-phase and solution approach for the synthesis of large peptides or proteins. *J. Peptide Sci.*, 6, 84-93. #14311

178. Nishiyama, Y., Shikama, S., Morita, K., & Kurita, K. (2000) Cyclohexyl ether as a new hydroxy-protecting group for serine and threonine in peptide synthesis. *Journal of the Chemical Society-Perkin Transaction 1*, 1949-1954. #779

179. Noda, M. (2000) 2-Methoxy-10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-one: Application for the peptide amide linkers and guanidino protection of arginine during Fmoc solid-phase peptide synthesis. *Amer. Lab.*, 32, 44. #15222

180. Nowick, J.S., Chung, D.M., Maitra, K., Maitra, S., Stigers, K.D., & Sun, Y. (2000) An unnatural amino acid that mimics a tripeptide beta-strand and forms beta-sheetlike hydrogen-bonded dimers. *J. Amer. Chem. Soc.*, 122, 7654-7661. #16028

181. O'Donnell, M.J., Drew, M.D., Pottorf, R.S., & Scott, W.L. (2000) UPS on Weinreb resin: A facile solid-phase route to aldehyde and ketone derivatives of "unnatural" amino acids and peptides. *Journal of Combinatorial Chemistry*, 2, 172-181. #14381

182. Okayama, T., Burritt, A., & Hruby, V.J. (2000) 4-Alkoxy-2-hydroxybenzaldehyde (AHB): A versatile aldehyde linker for solid-phase synthesis of C-terminal modified peptides and peptidomimetics. *Organic Letters*, 2, 1787-1790. #15228

183. Osapay, K., Tran, D., Ladokhin, A.S., White, S.H., Henschien, A.H., & Selsted, M.E. (2000) Formation and characterization of a single Trp-Trp cross-link in indolicidin that confers protease stability without altering antimicrobial activity. *Journal of Biological Chemistry*, 275, 12017-12022. #15232

184. Otaka, A. (2000) Development of new deprotecting methodologies for peptides and application to studies on signaling mechanism. *Yakugaku Zasshi - Journal of the Pharmaceutical Society of Japan*, 120, 54-67. #14096

185. Otaka, A., Mitsuyama, E., Kinoshita, T., Tamamura, H., & Fujii, N. (2000) Stereoselective synthesis of CF2-substituted phosphothreonine mimetics and their incorporation into peptides using newly developed deprotection procedures. *J. Org. Chem.*, 65, 4888-4899. #16032

186. Otvos, L.Jr., Bokonyi, K., Pease, A.M., Giles-Davis, W., Rogers, M.E., Hintz, P.A., Hoffmann, R. & Ertl, H.C.J. (2000) In situ identification of T helper cell epitopes from a cellulose-bound peptide array. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 685-686). Kluwer Academic Publisher, Dordrecht. #15746

187. Pellois, J.P., Wang, W., & Gao, X. (2000) Peptide synthesis based on t-Boc chemistry and solution photogenerated acids. *Journal of Combinatorial Chemistry*, 2, 355-360. #14688

188. Percot, A., Zhu, X.X., & Lafleur, M. (2000) Immobilization of lipid vesicles on polymer support via an amphiphilic peptidic anchor: Application to a membrane enzyme. *Bioconjug. Chem.*, 11, 674-678. #16043

189. Perodin, J., Bouley, R., Escher, E., Assimomitis, N., Magafa, V., Manessi-Zoupa, E., Theodoropoulos, D., & Cordopatis, P. (2000) Angiotensin II analogues with sulphur-containing side-chains in position 5. A structure-activity relationship study. *Arzneim. - Forsch.*, 50, 526-529. #15247

190. Pfeifer, M.E., Moehle, K., Linden, A., & Robinson, J.A. (2000) Synthesis and solution conformation of beta-hairpin mimetics utilizing a template derived from (2S,3R,4R)-diaminoproline. *Helv. Chim. Acta*, 83, 444-464. #15251

191. Planas, M., Bardaji, E., & Barany, G. (2000) Synthesis of cyclic peptide hybrids with amino acid and nucleobase side-chains. *Tetrahedron Lett.*, 41, 4097-4100. #14592

192. Planas, M., Bardaji, E. & Barany, G. (2000) Chemical synthesis of cyclic peptide nucleic acid-peptide hybrids. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 786-787). Kluwer Academic Publisher, Dordrecht. #15753

193. Pons, M., Albericio, F., Royo, M., & Giralt, E. (2000) Disulfide bonded cyclic peptide dimers and trimers: An easy entry to high symmetry peptide frameworks. *Synlett*, 172-181. #15255

194. Priem, G., Rocheblave, L., De Michelis, C., Courcambeck, J., & Kraus, J.L. (2000) Synthesis and chemical reactivity of thiophenoxyphenylalanine bioisosteres, suitable synthons for the design of HIV protease inhibitors. *J. Chem. Soc. Perkin Trans. 1*, 819-824. #15258

195. Rabanal, F., Pastor, J.J., Nicolas, E., Albericio, F., & Giralt, E. (2000) Synthesis of aspartimide-free protected peptides on base-labile functionalized resins. *Tetrahedron Lett.*, 41, 8093-8096. #15625

196. Rana, S., Dubuc, J., Bradley, M., & White, P. (2000) The synthesis of the cyclic antibacterial peptide Kawaguchi peptide B on 11 different DVB cross-linked PS resins. *Tetrahedron Lett.*, 41, 5135-5139. #14606

197. Rasoul, F., Ercole, F., Pham, Y., Bui, C.T., Wu, Z., James, S.N., Trainor, R.W., Wickham, G., & Maeji, N.J. (2000) Grafted supports in solid-phase synthesis. *Biopolymers (Pept. Sci.)*, 55, 207-216. #16438

198. Rinnova, M., Novakova, M., Kasicka, V., & Jiracek, J. (2000) Side reactions during photochemical cleavage of an amethyl-6-nitroveratryl-based photolabile linker. *J. Peptide Sci.*, 6, 355-365. #15449

199. Rivier, J.E., Jiang, G.C., Struthers, R.S., Koerber, S.C., Porter, J., Cervini, L.A., Kirby, D.A., Craig, A.G., & Rivier, C.L. (2000) Design of potent dicyclic (1-5/4-10) gonadotropin releasing hormone (GnRH) antagonists. *J. Med. Chem.*, 43, 807-818. #15272

200. Rivier, J.E., Struthers, R.S., Porter, J., Lahrichi, S.L., Jiang, G.C., Cervini, L.A., Ibea, M., Kirby, D.A., Koerber, S.C., & Rivier, C.L. (2000) Design of potent dicyclic (4-10/5-8) gonadotropin releasing hormone (GnRH) antagonists. *J. Med. Chem.*, 43, 784-796. #15270

201. Rivier, J.E., Porter, J., Cervini, L.A., Lahrichi, S.L., Kirby, D.A., Struthers, R.S., Koerber, S.C., & Rivier, C.L. (2000) Design of monocyclic (1-3) and dicyclic (1-3/4-10) gonadotropin releasing hormone (GnRH) antagonists. *J. Med. Chem.*, 43, 797-806. #15271

202. Roice, M., Kumar, K.S., & Pillai, V.N.R. (2000) Optimization in peptide synthetic conditions of 1,4-butanediol dimethacrylate cross-linked polystyrene resin and its efficiency in solid phase peptide synthesis. *Tetrahedron*, 56, 3725-3734. #15277

203. Rubina, A.Y., Bespalova, Z.D., & Bushuev, V.N. (2000) The solid phase synthesis of peptides containing an arginine residue with an unprotected guanidine group [Russian]. *Bioorganicheskaiia Khimiia*, 26, 263-272. #15284

204. Sabirov, A.N., Samukov, V.V., Pozdnyakov, P.I. & Kim, H.J. (2000) Nin-4-Nitrobenzenesulfonyl (Nbs): A new protecting group for the indole moiety of tryptophan. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 60-61). Kluwer Academic Publisher, Dordrecht. #15696

205. Sakura, N., Kurosawa, K., & Hashimoto, T. (2000) Structure-activity relationships of neuromedin U. IV. Absolute requirement of the arginine residue at position 7 of dog neuromedin U-8 for contractile activity. *Chem. Pharm. Bull. Tokyo*, 48, 1166-1170. #15782

206. Sanderson, J.M., Singh, P., Fishwick, C.W.G., & Findlay, J.B.C. (2000) The synthesis and reactivity of optically pure amino acids bearing side-chain thioamides. *Journal of the Chemical Society-Perkin Transaction 1*, 3227-3231. #16065

207. Sanz-Nebot, V., Benavente, F., & Barbosa, J. (2000) Separation and characterization of multicomponent peptide mixtures by liquid chromatography-electrospray ionization mass spectrometry. Application to crude products of the synthesis of leuprolide. *J. Chromatogr.*, 870, 315-334. #15293

208. Sanz-Nebot, V., Benavente, F., Castillo, A., & Barbosa, J. (2000) Liquid chromatography-electrospray mass spectrometry of multicomponent peptide mixtures - Characterization of a mixture from the synthesis of the hormone goserelin. *J. Chromatogr.*, 889, 119-133. #16066

209. Satyanarayana, J., Situ, H., Narasimhamurthy, S., Bhayani, N., Bobek, L.A., & Levine, M.J. (2000) Divergent solid-phase synthesis and candidacial activity of MUC7 D1, a 51-residue histidine-rich N-terminal domain of human salivary mucin MUC7. *J. Pept. Res.*, 56, 275-282. #15790

210. Schreiber, J.V., & Seebach, D. (2000) Solid-phase synthesis of a beta-dodecapeptide with seven functionalized side chains and CD-spectroscopic evidence for a dramatic structural switch when going from water to methanol solution. *Helv. Chim. Acta*, 83, 3139-3152. #16377

211. Schumann, C., Seyfarth, L., Greiner, G., & Reissmann, S. (2000) Synthesis of different types of dipeptide building units containing N- or C-terminal arginine for the assembly of backbone cyclic peptides. *J. Pept. Res.*, 55, 428-435. #15303

212. Seebach, D., Schreiber, J.V., Abele, S., Daura, X., & van Gunsteren, W.F. (2000) Structure and conformation of beta-oligopeptide derivatives with simple proteinogenic side chains: Circular dichroism and molecular dynamics investigations. *Helv. Chim. Acta*, 83, 34-57. #15307

213. Seitz, O. (2000) Solid-phase synthesis of doubly labeled peptide nucleic acids as probes for the real-time detection of hybridization. *Angew. Chem. Int. Ed.*, 39, 3249. #16070

214. Shan, D.X., Zheng, A.L., Ballard, C.E., Wang, W., Borchardt, R.T., & Wang, B.H. (2000) A facilitated cyclic ether formation and its potential application in solid-phase peptide and organic synthesis. *Chem. Pharm. Bull. Tokyo*, 48, 238-244. #14325

215. Sheppeck, J.E., Kar, H., Gosink, L., Wheatley, J.B., Gjerstad, E., Loftus, S.M., Zubiria, A.R., & Janc, J.W. (2000) Synthesis of a statistically exhaustive fluorescent peptide substrate library for profiling protease specificity. *Bioorg. Med. Chem. Lett.*, 10, 2639-2642. #16380

216. Shin, I., Lee, M.R., Lee, J., Jung, M., Lee, W., & Yoon, J. (2000) Synthesis of optically active phthaloyl D-aminoxy acids from L-amino acids or L-hydroxy acids as building blocks for the preparation of aminoxy peptides. *J. Org. Chem.*, 65, 7667-7675. #16072

217. Shogren-Knaak, M.A., McDonnell, K.A., & Imperiali, B. (2000) α -Chloroacetyl capping of peptides: An N-terminal capping strategy suitable for Edman sequencing. *Tetrahedron Lett.*, 41, 827-829. #14260

218. Shrimpton, C.N., Abbenante, G., Lew, R.A., & Smith, A.I. (2000) Development and characterization of novel potent and stable inhibitors of endopeptidase EC 3.4.24.15. *Biochem. J.*, 345, 351-356. #14143

219. Singh, L., Nakahara, Y., & Ito, Y. (2000) An efficient access to protected disialylated glycohexaosyl threonine present on the leukosialin of activated T-lymphocytes. *Carbohydr. Res.*, 325, 132-142. #15315

220. Sjolin, P., & Kihlberg, J. (2000) Deacetylation of N-alpha-methylated glycopeptides reveals that aza-enolates provide protection against beta-elimination of carbohydrates O-linked to serine. *Tetrahedron Lett.*, 41, 4435-4439. #15318

221. Sklyarov, L.Y., Sbitneva, I.N., Kopina, N.A., & Sidorovich, I.G. (2000) Amino acid pyridoxyl esters in peptide synthesis [Russian]. *Bioorganicheskaiia Khimiia*, 26, 273-284. #15319

222. Soll, R., & Beck-Sickinger, A.G. (2000) On the synthesis of orexin A: A novel one-step procedure to obtain peptides with two intramolecular disulphide bonds. *J. Peptide Sci.*, 6, 387-397. #15452

223. Songster, M.F., Biancalana, S., Cook, R.M., Dick, D.J. & Hudson, D. (2000) Orthogonal methods for the synthesis of multiply labeled peptide probes and substrates. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 111-112). Kluwer Academic Publisher, Dordrecht. #15709

224. Spector, S., Wang, M.H., Carp, S.A., Robblee, J., Hendsch, Z.S., Fairman, R., Tidor, B., & Raleigh, D.P. (2000) Rational modification of protein stability by the mutation of charged surface residues. *Biochemistry*, 39, 872-879. #15322

225. Srebalus, C.A., Li, J.W., Marshall, W.S., & Clemmer, D.E. (2000) Determining synthetic failures in combinatorial libraries by hybrid gas-phase separation methods. *J. Amer. Soc. Mass Spectrom.*, 11, 352-355. #15325

226. Stetsenko, D.A., & Gait, M.J. (2000) Efficient conjugation of peptides to oligonucleotides by "native ligation". *J. Org. Chem.*, 65, 4900-4908. #16076

227. Sutcliffe-Goulden, J.L., O'Doherty, M.J., & Bansal, S.S. (2000) Solid phase synthesis of [F-18]labelled peptides for positron emission tomography. *Bioorg. Med. Chem. Lett.*, 10, 1501-1503. #15330

228. Swinnen, D., & Hilvert, D. (2000) Facile, Fmoc-compatible solid-phase synthesis of peptide C-terminal thioesters. *Organic Letters*,

2, 2439-2442. #16085

229. Thieriet, N., Alsina, J., Guibe, F. & Albericio, F. (2000) Solid-phase peptide synthesis in the N--->C direction. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 78-79). Kluwer Academic Publisher, Dordrecht. #15699

230. Thieriet, N., Guibe, F., & Albericio, F. (2000) Solid-phase peptide synthesis in the reverse (N -> C) direction. *Organic Letters*, 2, 1815-1817. #15335

231. Tong, Y.S., Fobian, Y.M., Wu, M.Y., Boyd, N.D., & Moeller, K.D. (2000) Conformationally constrained substance P analogues: The total synthesis of a constrained peptidomimetic for the Phe(7)-Phe(8) region. *J. Org. Chem.*, 65, 2484-2493. #15341

232. Tornoe, C.W., Davis, P., Porreca, F., & Meldal, M. (2000) α -Azido acids for direct use in solid-phase peptide synthesis. *J. Peptide Sci.*, 6, 594-602. #16151

233. Tornoe, C.W., Sonke, T., Maes, I., Schoemaker, H.E., & Meldal, M. (2000) Enzymatic and chiral HPLC resolution of alpha-azido acids and amides. *Tetrahedron-Asymmetry*, 11, 1239-1248. #15342

234. Tornoe, C.W., Sengelov, H., & Meldal, M. (2000) Solid-phase synthesis of chemotactic peptides using alpha-azido acids (vol 6, pg 314, 2000). *J. Peptide Sci.*, 6, 539. #16095

235. Tornoe, C.W., Sengelov, H., & Meldal, M. (2000) Solid-phase synthesis of chemotactic peptides using α -azido acids. *J. Peptide Sci.*, 6, 314-320. #15554

236. Uray, K., Kajtar, J., Vass, E., Price, M.R., Hollosi, M., & Hudecz, F. (2000) Effect of D-amino acid substitution in a mucin 2 epitope on mucin-specific monoclonal antibody recognition. *Arch. Biochem. Biophys.*, 378, 25-32. #15347

237. Varady, L., Rajur, S.B., Nicewonger, R.B., Guo, M.J., & Ditto, L. (2000) Fast and quantitative high-performance liquid chromatography method for the determination of 9-fluorenylmethoxycarbonyl release from solid-phase synthesis resins. *J. Chromatogr.*, 869, 171-179. #15350

238. Vichier-Guerre, S., Lo-Man, R., Bay, S., Deriaud, E., Nakada, H., Leclerc, C., & Cantacuzene, D. (2000) Short synthetic glycopeptides successfully induce antibody responses to carcinoma-associated Tn antigen. *J. Pept. Res.*, 55, 173-180. #15353

239. Volonterio, A., Bravo, P., Moussier, N., & Zanda, M. (2000) Solid-phase synthesis of partially-modified retro and retro-inverso y [NHCH(CF₃)]-peptides. *Tetrahedron Lett.*, 41, 6517-6521. #15537

240. Wang, H., Miao, Z.W., Lai, L.H., & Xu, X.J. (2000) An efficient procedure for cleavage of T-butyl protected cysteine in solid phase peptide synthesis. *Syn. Commun.*, 30, 727-735. #14675

241. Wang, H.S., Su, W., Liu, D.X., Yang, X.W., Da, C.S., & Wang, R. (2000) Preparation of a polymer supported BINOL-Ti catalyst and its application in asymmetric addition of diethylzinc to aldehydes [Chinese]. *Chem. J. Chin. Univ.*, 21, 1524-1526. #16109

242. Warrass, R., Wieruszewski, J.M., Boutillon, C., & Lippens, G. (2000) High-resolution magic angle spinning NMR study of resin-bound polyalanine peptides. *J. Amer. Chem. Soc.*, 122, 1789-1795. #14676

243. **Wenschuh, H., Volkmer-Engert, R., Schmidt, M., Schulz, M., Schneider-Mergener, J., & Reineke, U. (2000) Coherent membrane supports for parallel microsynthesis and screening of bioactive peptides. *Biopolymers (Pept. Sci.)*, 55, 188-206. #16437**

244. Wiemann, A., Frank, R., & Tegge, W. (2000) Synthesis of suitably protected hydroxymethylene phosphonate- and 'phosphate phosphonate'-analogues of phosphoserine and their incorporation into synthetic peptides. *Tetrahedron*, 56, 1331-1337. #15370

245. Wilhelm, R.R., Srinivasan, A. & Schmidt, M.A. (2000) Evaluation of ivDde as a quasi-orthogonal protecting group for Fmoc solid-phase peptide synthesis. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 58-59). Kluwer Academic Publisher, Dordrecht. #15695

246. Wirkus-Romanowska, I., Miecznikowska, H., Zablocka, A., Rybka, K., Fortuna, W., Miedzybrodzki, R., Szymaniec, S., Janusz, M., Lisowski, J., & Kupryszewski, G. (2000) Fragments of a proline-rich polypeptide settled on a hexapeptide carcass constructed of glycine and L-lysine residues. *Synthesis and biological properties. Polish J. Chem.*, 74, 219-225. #15375

247. Wirkus-Romanowska, I., Miecznikowska, H., Janusz, M., Szymaniec, S., Fortuna, W., Miedzybrodzki, R., Zablocka, A., Lisowski, J., & Kupryszeowski, G. (2000) New analogues of proline-rich protein fragments. Synthesis and their effect on resistance of murine thymocytes to hydrocortisone. *Polish J. Chem.*, 74, 979-984. #15374

248. Xie, H., Becker, J.M., Gibbs, R.A., & Naider, F. (2000) Structure, biological activity and membrane partitioning of analogs of the isoprenylated a-factor mating peptide of *Saccharomyces cerevisiae*. *J. Pept. Res.*, 55, 372-383. #14400

249. **Yokum, T.S., & Barany, G. (2000) Strategy in solid-phase peptide synthesis. Solid-Phase Synthesis: A Practical Guide, 79-102. #16411**

250. Yu, Q., Lehrer, R.I. & Tam, J.P. (2000) Design and synthesis of salt-insensitive cyclic a-defensins. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 521-522). Kluwer Academic Publisher, Dordrecht. #15743

251. Zakhарьев, С., Szekely, Z., Guarnaccia, C., Antcheva, N. & Pongor, S. (2000) A highly effective method for synthesis of Nw-substituted arginines. In G.B. Fields, J.P. Tam & G. Barany (Eds.), *Peptides for the New Millennium*. (pp. 74-75). Kluwer Academic Publisher, Dordrecht. #15697

252. Zamborelli, T.J., Dodson, W.S., Harding, B.J., Zhang, J., Bennett, B.D., Lenz, D.M., Young, Y., Haniu, M., Liu, C.F., Jones, T., & Jarosinski, M.A. (2000) A comparison of folding techniques in the chemical synthesis of the epidermal growth factor-like domain in neu differentiation factor a/b. *J. Pept. Res.*, 55, 359-371. #14399

253. Zaoral, M., Blaha, I., Budesinsky, M., Machova, A., & Slaninova, J. (2000) Non-sequential vasopressin peptides. Stereochemistry and biological activity. *J. Peptide Sci.*, 6, 123-129. #14443

254. Zhang, S., & Lee, J.P. (2000) Selectively H-2-labeled Glu/Asp: Application to pK(a) measurements in A beta amyloid peptides. *J. Pept. Res.*, 55, 1-6. #14202

255. Ahn, I.A., Kim, S.W., & Ro, S. (1999) Solid phase synthesis of azapeptides using an automatic synthesizer. *Mol. Diversity*, 4, 23-24. #12922

256. Akaji, K., Hayashi, Y., Kiso, Y., & Kuriyama, N. (1999) Convergent synthesis of dolastatin 15 by solid phase coupling of an N-methylamino acid. *J. Org. Chem.*, 64, 405-411. #12622

257. Al-Obeidi, F., & Ostrem, J.A. (1999) Factor Xa inhibitors. *Exp. Opin. Ther. Patents*, 9, 931-953. #13469

258. Albericio, F., Frieden, A., del Fresno, M., Royo, M., Alsina, J., Jensen, K.J., Kates, S.A. & Barany, G. (1999) Solid-phase synthesis of "head-to-tail" cyclic and C-terminal modified peptides. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 7-10). Mayflower Scientific Limited, Birmingham. #13450

259. Angell, Y.M., Han, Y., Albericio, F. & Barany, G. (1999) Minimization of cysteine racemization during stepwise solid-phase peptide synthesis. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 247-248). Mayflower Scientific Limited, Birmingham. #13687

260. Annis, I., Chen, L. & Barany, G. (1999) Mild solid-phase reagents for facile formation of intramolecular disulfide bonds in peptides and proteins. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 249-252). Mayflower Scientific Limited, Birmingham. #13688

261. Antopolksky, M., & Azhayev, A. (1999) Stepwise solid-phase synthesis of peptide-oligonucleotide conjugates on new solid supports. *Helv. Chim. Acta*, 82, 2130-2140. #13905

262. Appel, J.R., Johnson, J., Narayanan, V.L., & Houghten, R.A. (1999) Identification of novel antitumor agents from mixture-based synthetic combinatorial libraries using cell-based assays. *Mol. Diversity*, 4, 91-102. #12926

263. Appendini, P., & Hotchkiss, J.H. (1999) Antimicrobial activity of a 14-residue peptide against *Escherichia coli* O157 : H7. *Journal of Applied Microbiology*, 87, 750-756. #13906

264. Arrowsmith, J., Missailidis, S., & Stevens, M.F.G. (1999) Antitumour imidazotetrazines. Part 37. Conjugation of the DNA major-groove alkylating imidazotetrazine mitozolomide to peptide motifs recognizing the minor groove. *Anti-Cancer Drug. Des.*, 14, 205-217. #13908

265. Ast, T., Heine, N., Germeroth, L., Schneider-Mergener, J., & Wenschuh, H. (1999) Efficient assembly of peptomers on continuous surfaces. *Tetrahedron Lett.*, 40, 4317-4318. #12928

266. Aubagnac, J.L., Enjalbal, C., Drouot, C., Combarieu, R., & Martinez, J. (1999) Imaging time-of-flight secondary ion mass spectrometry of solid-phase peptide syntheses. *J. Mass Spectrom.*, 34, 749-754. #13475

267. Ayers, B., Blaschke, U.K., Camarero, J.A., Cotton, G.J., Holford, M., & Muir, T.W. (1999) Introduction of unnatural amino acids into proteins using expressed protein ligation. *Biopolymers (Pept. Sci.)*, 51, 343-354. #14270

268. Babu, V.V.S., Gayathri, K., & Gopi, H.N. (1999) Fmoc-peptide acid chlorides in fragment coupling: Synthesis of beta-casomorphin by 3+2 divergent approach. *Syn. Commun.*, 29, 79-91. #12707

269. Bajusz, S., & Hudecz, F. (1999) *Peptides 1998*. Akademiai Kiado, Budapest. #14406

270. Balaspiri, L., Janaky, T., Tegyei, Z., Krajcsovits, F., Blazso, G., Mak, M., Takbcs, T. & Kasa, P. (1999) Solid phase synthesis of new galanins and galanin segments: Structure-activity relationships. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 55-58). Mayflower Scientific Limited, Birmingham. #13459

271. Barany, G., Angell, Y.M., Annis, I., Chen, L., Gross, C.M. & Hargittai, B. (1999) Current strategies for disulfide bridge formation in synthetic peptides and proteins. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 85-88). Mayflower Scientific Limited, Birmingham. #13465

272. Bark, S.J., & Kent, S.B.H. (1999) Engineering an unnatural N-alpha-anchored disulfide into BPTI by total chemical synthesis: Structural and functional consequences. *FEBS Lett.*, 460, 67-76. #13912

273. Barlos, K., & Gatos, D. (1999) 9-Fluorenylmethyloxycarbonyl/tbutyl-based convergent protein synthesis. *Biopolymers (Pept. Sci.)*, 51, 266-278. #13894

274. Baru, M.B., Mustaeva, L.G., Gorbunova, E.Y., Vagenina, I.V., Kitaeva, M.A., & Cherskii, V.V. (1999) Spectrophotometric monitoring in continuous-flow Boc-based solid-phase peptide synthesis. *J. Pept. Res.*, 54, 263-269. #13751

275. Bechinger, B. (1999) The structure, dynamics and orientation of antimicrobial peptides in membranes by multidimensional solid-state NMR spectroscopy. *Biochimica et Biophysica Acta - Biomembranes*, 1462, 157-183. #14935

276. Bednarek, M.A., Silva, M.V., Arison, B., MacNeil, T., Kalyani, R.N., Huang, R.R.C., & Weinberg, D.H. (1999) Structure-function studies on the cyclic peptide MT-II, lactam derivative of alpha-melanotropin. *Peptides*, 20, 401-409. #13478

277. Behrendt, R., Renner, C., Schenk, M., Wang, F.Q., Wachtveitl, J., Oesterhelt, D., & Moroder, L. (1999) Photomodulation of the conformation of cyclic peptides with azobenzene moieties in the peptide backbone. *Angew. Chem. Int. Ed.*, 38, 2771-2774. #13916

278. Beligere, G.S., & Dawson, P.E. (1999) Synthesis of a three zinc finger protein, Zif268, by native chemical ligation. *Biopolymers (Pept. Sci.)*, 51, 363-369. #14272

279. Belvisi, L., Gennari, C., Mielgo, A., Potenza, D., & Scolastico, C. (1999) Conformational preferences of peptides containing reverse-turn mimetic bicyclic lactams: Inverse gamma-turns versus type-II 'beta-turns - Insights into beta-hairpin stability. *Eur. J. Org. Chem.*, 389-400. #12709

280. Berezhkovskiy, L., Pham, S., Reich, E.P., & Deshpande, S. (1999) Synthesis and kinetics of cyclization of MHC class II-derived cyclic peptide vaccine for diabetes. *J. Pept. Res.*, 54, 112-119. #13480

281. Bergeron, R.J., Bussenius, J., Muller, R., McCosar, B.H., & McManis, J.S. (1999) (R)- And (S)-N-(benzyloxycarbonyl)-3,4-epoxybutylamine. New 4-amino-2-hydroxybutyl synthons for the synthesis of hypusine reagents and (R)-6-and (S)-7-hydroxyspermidine. *Tetrahedron:Asymmetry*, 10, 4285-4294. #14941

282. Biederman, K.J., Lee, H., Haney, C.A., Kaczmarek, M., & Buettner, J.A. (1999) Combinatorial peptide on-resin analysis: Optimization of static nanoelectrospray ionization technique for sequence determination. *J. Pept. Res.*, 53, 234-243. #12859

283. Birr, C. (1999) Organic synthetic methodology extensions forgotten in peptide science. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 75-84). Mayflower Scientific Limited, Birmingham. #13464

284. Bisland, S.K., Singh, D., & Gariepy, J. (1999) Potentiation of chlorin e6 photodynamic activity in vitro with peptide-based intracellular vehicles. *Bioconjug. Chem.*, 10, 982-992. #13922

285. Blackburn, C. & Kates, S.A. (1999) Homodetic cyclic peptides via solid phase synthesis. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 129-134). Mayflower Scientific Limited, Birmingham. #13663

286. Bofill, J.M., & Albericio, F. (1999) Understanding the structure/reactivity of aminium/uronium salts as coupling reagents in peptide synthesis. *Tetrahedron Lett.*, 40, 2641-2644. #12627

287. Bogdanowich-Knipp, S.J., Jois, S.D.S., & Siahaan, T.J. (1999) Effect of conformation on the conversion of cyclo-(1,7)-Gly-Arg-Gly-Asp-Ser-Pro-Asp-Gly-OH to its cyclic imide degradation product. *J. Pept. Res.*, 54, 43-53. #13102

288. Boguslavsky, J. (1999) Need protein? Organic chemistry holds the key. *Drug. Dis. Develop.*, 30-33. #12914

289. Bonnet, D., Samson, F., Rommens, C., Gras-Masse, H., & Melnyk, O. (1999) Synthesis of hydrazinopeptides using solid-phase N-electrophilic amination: Extension to the Fmoc/tert-butyl strategy and chemistry of the N-N bond in strong acid media. *J. Pept. Res.*, 54, 270-278. #13752

290. Bosze, S., Koczan, G., Csik, G., Falus, A. & Hudecz, F. (1999) A new fluorophore for peptide labelling: Synthesis and analysis of its interaction with interleukin-6 receptor. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 189-192). Mayflower Scientific Limited, Birmingham. #13672

291. Boudjabi, S., Dewynter, G., Voyer, N., Toupet, L., & Montero, J.L. (1999) Sulfahydantoins as tripeptide constraints: Synthesis and structure of chiral substituted 3-oxo-1,2,5-thiadiazolidine 1,1-dioxides. *Eur. J. Org. Chem.*, 2275-2283. #14955

292. Bourne, G.T., Meutermans, W.D.F., Alewood, P.F., McGeary, R.P., Scanlon, M., Watson, A.A., & Smythe, M.L. (1999) A backbone linker for BOC-based peptide synthesis and on-resin cyclization: Synthesis of stylostatin 1. *J. Org. Chem.*, 64, 3095-3101. #12861

293. Bourne, G.T., Meutermans, W.D.F., & Smythe, M.L. (1999) The development of solid phase protocols for a backbone amide linker and its application to the Boc-based assembly of linear peptides. *Tetrahedron Lett.*, 40, 7271-7274. #13774

294. Brickmann, K., Yuan, Z.Q., Sethson, I., Somfai, P., & Kihlberg, J. (1999) Synthesis of conformationally restricted mimetics of gamma-turns and incorporation into desmopressin, an analogue of the peptide hormone vasopressin. *Chem. Eur. J.*, 5, 2241-2253. #13485

295. Broadbridge, R.J., Sharma, R.P. & Akhtar, M. (1999) Design and synthesis of novel Src homology-2 domain inhibitors. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 211-216). Mayflower Scientific Limited, Birmingham. #13678

296. Broddefalk, J., Forsgren, M., Sethson, I., & Kihlberg, J. (1999) Preparation of a diglycosylated hydroxylysine building block used in solid-phase synthesis of a glycopeptide from type II collagen. *J. Org. Chem.*, 64, 8948-8953. #13924

297. Buku, A. (1999) Mast cell degranulating (MCD) peptide: A prototypic peptide in allergy and inflammation. *Peptides*, 20, 415-420. #13489

298. Cabezas, E., & Satterthwait, A.C. (1999) The hydrogen bond mimic approach: Solid-phase synthesis of a peptide stabilized as an α -helix with a hydrazone link. *J. Amer. Chem. Soc.*, 121, 3862-3875. #12862

299. Caciagli, V., Cardinali, F., Sisto, A. & Lombardi, P. (1999) Scaling-up procedure for continuous flow SPPS. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 63-66). Mayflower Scientific Limited, Birmingham. #13461

300. Canne, L.E., Botti, P., Simon, R.J., Chen, Y.J., Dennis, E.A., & Kent, S.B.H. (1999) Chemical protein synthesis by solid phase ligation of unprotected peptide segments. *J. Amer. Chem. Soc.*, 121, 8720-8727. #14232

301. Ceruso, M.A., McComsey, D.F., Leo, G.C., Andrade-Gordon, P., Addo, M.F., Scarborough, R.M., Oksenberg, D., & Maryanoff, B.E. (1999) Thrombin receptor-activating peptides (TRAPs): Investigation of bioactive conformations via structure-activity, spectroscopic, and computational studies. *Bioorg. Med. Chem.*, 7, 2353-2371. #13926

302. Cervini, L., Theobald, P., Corrigan, A., Craig, A.G., Rivier, C., Vale, W., & Rivier, J. (1999) Corticotropin releasing factor (CRF) agonists with reduced amide bonds and Ser(7) substitutions. *J. Med. Chem.*, 42, 761-768. #12720

303. Chaloin, L., Mery, J., Van Mau, N., Divita, G., & Heitz, F. (1999) Synthesis of a template-associated peptide designed as a transmembrane ion channel former. *J. Peptide Sci.*, 5, 381-391. #13928

304. Chen, H., Cong, L.N., Li, Y.H., Yao, Z.J., Wu, L., Zhang, Z.Y., Burke, T.R., & Quon, M.J. (1999) Phosphotyrosyl mimetic peptide reverses impairment of insulin-stimulated translocation of GLUT4 caused by overexpression of PTP1B in rat adipose cells. *Biochemistry*, 38, 384-389. #12722

305. Chen, L., Golser, R., Machova, A., Slaninova, J., & Barany, G. (1999) Chemical syntheses and biological studies on dimeric chimeras of oxytocin and the V-2-antagonist, d(CH₂)(5)[D-Ile(2),Ile(4)]arginine vasopressin. *J. Med. Chem.*, 42, 5002-5009. #13932

306. Chitnumsub, P., Fiori, W.R., Lashuel, H.A., Diaz, H., & Kelly, J.W. (1999) The nucleation of monomeric parallel beta-sheet-like structures and their self-assembly in aqueous solution. *Bioorg. Med. Chem.*, 7, 39-59. #12724

307. Chiva, C., Vilaseca, M., Giralt, E., & Albericio, F. (1999) An HPLC-ESMS study on the solid-phase assembly of C-terminal proline peptides. *J. Peptide Sci.*, 5, 131-140. #12725

308. Cilli, E.M., Marchetto, R., Schreier, S., & Nakaie, C.R. (1999) Correlation between the mobility of spin-labeled peptide chains and resin solvation: An approach to optimize the synthesis of aggregating sequences. *J. Org. Chem.*, 64, 9118-9123. #13937

309. Clippingdale, A.B., Macris, M., Wade, J.D., & Barrow, C.J. (1999) Synthesis and secondary structural studies of penta(acetyl-Hmb)A beta(1-40). *J. Pept. Res.*, 53, 665-672. #12945

310. Cornille, F., Wecker, K., Loffet, A., Genet, R., & Roques, B. (1999) Efficient solid-phase synthesis of Vpr from HIV-1 using low quantities of uniformly ¹³C-, ¹⁵N-labeled amino acids for NMR structural studies. *J. Pept. Res.*, 54, 427-435. #13787

311. Cotton, G.J., & Muir, T.W. (1999) Peptide ligation and its application to protein engineering. *Chem. Biol.*, 6, R247-R256. #13939

312. Coupal, M., De Lean, A., McNicoll, N., & Fournier, A. (1999) Development of p-benzoylbenzoylated [N,C,rANP(1-28)]pBNP32 (pBNP1) derivatives and affinity photolabeling of the bovine NPR-A receptor. *Biochem. Biophys. Res. Commun.*, 258, 81-86. #12948

313. Cudic, M., Bulet, P., Hoffmann, R., Craik, D.J., & Otvos, L.Jr. (1999) Chemical synthesis, antibacterial activity and conformation of diptericin, an 82-mer peptide originally isolated from insects. *Eur. J. Biochem.*, 266, 549-558. #14234

314. Daquinag, A.C., Sato, T., Koda, H., Takao, T., Fukuda, M., Shimonishi, Y., & Tsukamoto, T. (1999) A novel endogenous inhibitor of phenoloxidase from *Musca domestica* has a cystine motif commonly found in snail and spider toxins. *Biochemistry*, 38, 2179-2188. #12728

315. Davies, M., & Bradley, M. (1999) Internal resin capture: A self purification method for the synthesis of C-terminally modified peptides. *Tetrahedron*, 55, 4733-4746. #12730

316. Davis, B.G. (1999) Recent developments in glycoconjugates. *J. Chem. Soc. Perkin Trans. 1*, 3215-3237. #13943

317. Dawson, N.F., Tan, Y.Y., Macris, M., Otvos, L., Summers, R.J., Tregear, G.W., & Wade, J.D. (1999) Solid-phase synthesis of ovine Leydig cell insulin-like peptide: A putative ovine relaxin? *J. Pept. Res.*, 53, 542-547. #12953

318. Dawson, N.F., Craik, D.J., McManus, A.M., Dashper, S.G., Reynolds, E.C., Tregear, G.W., Otvos, L., & Wade, J.D. (1999) Chemical synthesis, characterization and activity of RK-1, a novel alpha-defensin-related peptide. *J. Peptide Sci.*, 6, 19-25. #13945

319. de Bont, D.B.A., Sliedregt-Bol, K.M., Hofmeyer, L.J.F., & Liskamp, R.M.J. (1999) Increased stability of peptidesulfonamide peptidomimetics towards protease catalyzed degradation. *Bioorg. Med. Chem.*, 7, 1043-1047. #13499

320. Debenham, S.D., Cossrow, J., & Toone, E.J. (1999) Synthesis of alpha- and beta-carbon-linked serine analogues of the P-k trisaccharide. *J. Org. Chem.*, 64, 9153-9163. #13950

321. DeGrado, W.F., Schneider, J.P., & Hamuro, Y. (1999) The twists and turns of beta-peptides. *J. Pept. Res.*, 54, 206-217. #13951

322. Delarue, S., & Sergheraert, C. (1999) PyBroP: A convenient activator for the synthesis of formamidines. *Tetrahedron Lett.*, 40, 5487-5490. #13122

323. Doleckova, L., Pavlik, M., Mares, M. & Kluh, I. (1999) Inhibitory specificity spectrum of peptide a-amylase inhibitors designed by limited combinatorial libraries. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 277-278). Mayflower Scientific Limited, Birmingham. #13693

324. Dong, S.L., Wang, T., Chen, Q., & Wang, R. (1999) Synthesis, structure-activity relationship of nociceptin and its fragments. *Chin. Sci. Bull.*, 44, 1655-1659. #15014

325. Dragovich, P.S., Zhou, R., Skalitzky, D.J., Fuhrman, S.A., Patick, A.K., Ford, C.E., Meador, J.W., & Worland, S.T. (1999) Solid-phase synthesis of irreversible human rhinovirus 3C protease inhibitors. Part 1: Optimization of tripeptides incorporating N-terminal amides. *Bioorg. Med. Chem.*, 7, 589-598. #12957

326. Drozdz, R., Hintermann, E., Tanner, H., Zumsteg, U., & Eberle, A.N. (1999) (D-(p-Benzoylphenylalanine)13,tyrosine19)-melanin-concentrating hormone, a potent analogue for MCH receptor crosslinking. *J. Peptide Sci.*, 5, 234-242. #14430

327. Echner, H. & Voelter, W. (1999) The 5-phenyl-5H-dibenzo[a,d]cyclohepten-5-yl (Pdbs) and the 5-anisyl-5H-dibenzo[a,d]cyclohepten-5-yl (Adbs) residues: Two new protecting groups for the Nim-function of histidine. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 279-282). Mayflower Scientific Limited, Birmingham. #13694

328. Eggenweiler, H.M., Clausen, N. & Bayer, E. (1999) a-Hydroxymethylacrylic acid in solid phase synthesis: An extremely nucleophile sensitive linker. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 283-286). Mayflower Scientific Limited, Birmingham. #13695

329. Eggleston, I.M., Peggion, C., Svendsen, J.S. & Mutter, M. (1999) Practical synthesis and application of a b-turn mimetic for SPPS. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 287-290). Mayflower Scientific Limited, Birmingham. #13696

330. Eichler, J. & Houghten, R.A. (1999) Scaffolded peptide combinatorial libraries. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 155-158). Mayflower Scientific Limited, Birmingham. #13667

331. Eisele, F., Owen, D.J., & Waldmann, H. (1999) Peptide conjugates as tools for the study of biological signal transduction. *Bioorg. Med. Chem.*, 7, 193-224. #12736

332. Elbayed, K., Bourdonneau, M., Furrer, J., Richert, T., Raya, J., Hirsching, J., & Piotto, M. (1999) Origin of the residual NMR linewidth of a peptide bound to a resin under magic angle spinning. *J. Magn. Resonance*, 136, 127-129. #12531

333. Eleftheriou, S., Gatos, D., Panagopoulos, A., Stathopoulos, S., & Barlos, K. (1999) Attachment of histidine, histamine and urocanic acid to resins of the trityl-type. *Tetrahedron Lett.*, 40, 2825-2828. #12636

334. Englebretsen, D.R., & Robillard, G.T. (1999) An N-terminal method for peptide solubilisation. *Tetrahedron*, 55, 6623-6634. #12959

335. Epton, R. (1999) *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. Mayflower Scientific Limited, Birmingham. ISBN 0952701138 #13448

336. Evstigneeva, R.P., Zheltukhina, G.A., Khalil', V., & Efimova, E.I. (1999) The synthesis of Arg-containing peptides and their conjugates with protohemin IX and tetraphenylporphyrin. *Bioorganicheskaja Khimiia*, 25, 572-580. #13960

337. Falb, E., Yechezkel, T., Salitra, Y., & Gilon, C. (1999) In situ generation of Fmoc-amino acid chlorides using bis(trichloromethyl) carbonate and its utilization for difficult couplings in solid-phase peptide synthesis. *J. Pept. Res.*, 53, 507-517. #12960

338. Fischer, M., & Tran, C.D. (1999) Investigation of solid phase peptide synthesis by the near-infrared multispectral imaging technique: A detection method for combinatorial chemistry. *Anal. Chem.*, 71, 2255-2261. #13402

339. Fotsch, C., Kumaravel, G., Sharma, S.K., Wu, A.D., Gounaris, J.S., Nirmala, N.R., & Petter, R.C. (1999) On-resin macrocyclization of peptides via intramolecular SnAr reactions. *Bioorg. Med. Chem. Lett.*, 9, 2125-2130. #13514

340. Francke, C., Loyal, R., Ohad, I., & Hachnel, W. (1999) In vitro assembly of a beta(2) cytochrome b(559)-like complex from the chemically synthesised beta-subunit encoded by the *Synechocystis* sp 6803 *psbF* gene. *FEBS Lett.*, 442, 75-78. #12354

341. Freund, E., & Robinson, J.A. (1999) Solid-phase synthesis of a putative heptapeptide intermediate in vancomycin biosynthesis. *Chem. Commun.*, 2509-2510. #14236

342. Fruchart, J.S., Gras-Masse, H., & Melnyk, O. (1999) A new linker for the synthesis of C-terminal peptide alpha-oxo-aldehydes. *Tetrahedron Lett.*, 40, 6225-6228. #13517

343. Fukuda, H., Shimizu, T., Nakajima, M., Mori, H., & Shirasawa, T. (1999) Synthesis, aggregation, and neurotoxicity of the Alzheimer's Ab1-42 amyloid peptide and its isoaspartyl isomers. *Bioorg. Med. Chem. Lett.*, 9, 953-956. #12867

344. Fukuda, H., Irie, K., Nakahara, A., Ohigashi, H., & Wender, P.A. (1999) Solid-phase synthesis, mass spectrometric analysis of the zinc-folding, and phorbol ester-binding studies of the 116-mer peptide containing the tandem cysteine-rich C1 domains of protein kinase C gamma. *Bioorg. Med. Chem.*, 7, 1213-1221. #13519

345. Gademann, K., Hintermann, T., & Schreiber, J.V. (1999) b-Peptides: Twisting and turning. *Curr. Med. Chem.*, 6, 905-925. #13973

346. Ganguly, D., & Rodriguez, M.J. (1999) Cyclopeptamine lipopeptide antifungal agents. *Exp. Opin. Ther. Patents*, 9, 67-71. #12358

347. Gennari, C., Mielgo, A., Potenza, D., Scolastico, C., Piarulli, U., & Manzoni, L. (1999) Solid-phase synthesis of peptides containing reverse-turn mimetic bicyclic lactams. *Eur. J. Org. Chem.*, 379-388. #12742

348. Gibson, C., Goodman, S.L., Hahn, D., Holzemann, G., & Kessler, H. (1999) Novel solid-phase synthesis of azapeptides and azapeptoides via Fmoc-strategy and its application in the synthesis of RGD-mimetics. *J. Org. Chem.*, 64, 7388-7394. #13981

349. Giraud, M., Cavelier, F., & Martinez, J. (1999) A side-reaction in the SPPS of Trp-containing peptides. *J. Peptide Sci.*, 5, 457-461. #13983

350. Goetz, M., Schmitter, J.M., Geoffre, S., & Dufourc, E.J. (1999) Chemical synthesis of yeast mitochondrial ATP synthase membranous subunit 8. *J. Peptide Sci.*, 5, 245-250. #13106

351. Gomez-Martinez, P., Dessolin, M., Guibe, F., & Albericio, F. (1999) N-a-Alloc temporary protection in solid-phase peptide synthesis. The use of amine-borane complexes as allyl group scavengers. *J. Chem. Soc. Perkin Trans. 1*, 2871-2874. #13987

352. Gomme, P.T., Stanton, P.G., & Hearn, M.T.W. (1999) Evaluation of a pepscan approach to identify epitopes recognised by anti-hTSH monoclonal antibodies. *J. Biochem. Biophys. Meth.*, 38, 53-70. #12594

353. Grahn, S., Kurth, T., Ullmann, D., & Jakubke, H.D. (1999) S' subsite mapping of serine proteases based on fluorescence resonance energy transfer. *Biochimica et Biophysica Acta - Protein Structure and Molecular Enzymology*, 1431, 329-337. #12969

354. Gras-Masse, H., Georges, B., Estaquier, J., Tranchand-Bunel, D., Tartar, A., Druilhe, P., & Auriault, C. (1999) Convergent peptide libraries, or mixotopes, to elicit or to identify specific immune responses. *Curr. Opin. Immunol.*, 11, 223-228. #12639

355. Guarna, A., Guidi, A., Machetti, F., Menchi, G., Occhiato, E.G., Scarpi, D., Sisi, S., & Trabocchi, A. (1999) Synthesis and reactivity of bicycles derived from tartaric acid and alpha-amino acids: A novel class of conformationally constrained dipeptide isosteres based upon enantiopure 3-aza-6,8-dioxabicyclo[3.2.1]octane-7-carboxylic acid. *J. Org. Chem.*, 64, 7347-7364. #13995

356. Gung, B.W., Zou, D., Stalcup, A.M., & Cottrell, C.E. (1999) Characterization of a water-soluble, helical beta-peptide. *J. Org. Chem.*, 64, 2176-2177. #12973

357. Habermann, J. & Kunz, H. (1999) Pentafluorophenyluronium reagents and allylic anchoring groups in solid phase glycopeptide synthesis. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 217-220). Mayflower Scientific Limited, Birmingham. #13679

358. Hamuro, Y., Scialdone, M.A., & DeGrado, W.F. (1999) Resin-to-resin acyl- and aminoacyl-transfer reactions using oxime supports. *J. Amer. Chem. Soc.*, 121, 1636-1644. #12641

359. Hanessian, S., Luo, X.H., & Schaum, R. (1999) Synthesis and folding preferences of gamma-amino acid oligopeptides: Stereochemical control in the formation of a reverse turn and a helix. *Tetrahedron Lett.*, 40, 4925-4929. #13524

360. Haramura, M., Tsuzuki, K., Okamachi, A., Yogo, K., Ikuta, M., Kozono, T., Takanashi, H., & Murayama, E. (1999) Structure-activity study of intact porcine motilin. *Chem. Pharm. Bull. Tokyo*, 47, 1555-1559. #14003

361. Hargittai, B., & Barany, G. (1999) Controlled syntheses of natural and disulfide-mispaired regioisomers of alpha-conotoxin SI. *J. Pept. Res.*, 54, 468-479. #14004

362. Heizmann, G., Hildebrand, P., Tanner, H., Ketterer, S., Pansky, A., Froidevaux, S., Beglinger, C., & Eberle, A.N. (1999) A combinatorial peptoid library for the identification of novel MSH and GRP/bombesin receptor ligands. *Journal of Receptor and Signal Transduction Research*, 19, 449-466. #12746

363. Henkel, W., Vogl, T., Echner, H., Voelter, W., Urbanke, C., Schleuder, D., & Rauterberg, J. (1999) Synthesis and folding of native collagen III model peptides. *Biochemistry*, 38, 13610-13622. #14012

364. Henklein, P., Ionescu, D., El-Faham, A., Wenschuh, H., Bienert, M., Carpino, L.A. & Beyermann, M. (1999) Coupling of highly hindered systems using protected amino acid chlorides. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 221-224). Mayflower Scientific Limited, Birmingham. #13680

365. Henklein, P., Mugge, C., Costisella, B., Wray, V., Domke, T., El-Faham, A., Lee, Y., Kates, S.A. & Carpino, L.A. (1999) Solution structure of uronium and phosphonium salts. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 309-310). Mayflower Scientific Limited, Birmingham. #13700

366. Higashimoto, Y., Kodama, H., Jelokhani-Niaraki, M., Kato, F., & Kondo, M. (1999) Structure-function relationship of model Aib-containing peptides as ion transfer intermembrane templates. *J. Biochem. Tokyo*, 125, 705-712. #12747

367. Hintermann, E., Drozdz, R., Tanner, H. & Eberle, A.N. (1999) Synthesis and receptor binding activity of analogues and fragment of human melanin-concentrating hormone (MCH). In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 193-196). Mayflower Scientific Limited, Birmingham. #13673

368. Hioki, H., Yamada, T., Fujioka, C., & Kodama, M. (1999) Peptide library based on calix[4]arene. *Tetrahedron Lett.*, 40, 6821-6825. #13761

369. Hoffmann, R., Craik, D.J., Bokonyi, K., Varga, I., & Otvos, L. (1999) High level of aspartic acid-bond isomerization during the synthesis of an N-linked tau glycopeptide. *J. Peptide Sci.*, 5, 442-456. #14018

370. Hoffmann, R., Ertl, H.C.J., Pease, A.M., Rovera, G. & Otvos, L.Jr. (1999) Optimization of synthesis and DNA hybridization of peptide nucleic acids. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 311-314). Mayflower Scientific Limited, Birmingham. #13701

371. Hoogerhout, P., Stittelaar, K.J., Brugghe, H.F., Timmermans, J.A.M., ten Hove, G.J., Jiskoot, W., Hoekman, J.H.G., & Roholl, P.J.M. (1999) Solid-phase synthesis and application of double-fluorescent-labeled lipopeptides, containing a CTL-epitope from the measles fusion protein. *J. Pept. Res.*, 54, 436-443. #13788

372. Hsieh, H.P., Wu, Y.T., Chen, S.T., & Wang, K.T. (1999) Direct solid-phase synthesis of octreotide conjugates: Precursors for use as tumor-targeted radiopharmaceuticals. *Bioorg. Med. Chem.*, 7, 1797-1803. #14020

373. Huang, H., & Rabenstein, D.L. (1999) A cleavage cocktail for methionine-containing peptides. *J. Pept. Res.*, 53, 548-553. #12981

374. Huang, Y.D., Chen, H., Feng, Y.M., & Zhang, J.P. (1999) Preliminary crystallographic studies on two insulin analogues which retain high biological activities after alterations in A chain. *Chin. Sci. Bull.*, 44, 1480-1483. #15101

375. Huang, Y.D., Yang, S.Z., Feng, Y.M., & Niu, C.I. (1999) An insulin analog with g-amino butyric acid substitution for A13Leu-A14Tyr. *J. Pept. Res.*, 54, 18-22. #13100

376. Husbyn, M., Orning, L., Cuthbertson, A., & Fischer, P.M. (1999) Linear analogues derived from the first EGF-like domain of human blood coagulation factor VII: Enhanced inhibition of FVIIa/TF complex activity by backbone modification through aspartimide formation. *J. Peptide Sci.*, 5, 323-329. #14023

377. Ingenito, R., Bianchi, E., Fattori, D., & Pessi, A. (1999) Solid phase synthesis of peptide C-terminal thioesters by Fmoc/t-Bu chemistry. *J. Amer. Chem. Soc.*, 121, 11369-11374. #14025

378. Ishida, H., & Inoue, Y. (1999) Peptides that contain unnatural amino acids: Toward artificial proteins. *Reviews on Heteroatom Chemistry*, 19, 79-142. #12754

379. Jang, T.S., Shin, S.Y., Ha, J.M., & Kang, S.W. (1999) Structure-contractile activity relationships of neurokinin A on guinea pig tracheal smooth muscle. *Bull. Kor. Chem. Soc.*, 20, 199-202. #12757

380. Jenkins, K.E., Higson, A.P., Seeberger, P.H. & Caruthers, M.H. (1999) Solid phase synthesis of O-boranophosphopeptides and O-dithiophosphopeptides. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 225-228). Mayflower Scientific Limited, Birmingham. #13681

381. Jezek, J., Velek, J., Veprek, P., Velkova, V., Trnka, T., Pecka, J., Ledvina, M., Vondrasek, J., & Pisacka, M. (1999) Solid phase synthesis of glycopeptide dendrimers with Tn antigenic structure and their biological activities. Part I. *J. Peptide Sci.*, 5, 46-55. #12759

382. Jubilut, G.N., Miranda, M.T., Tominaga, M., Okada, Y., Miranda, A., & Nakaie, C.R. (1999) Resin selection based on the lability of peptidyl-resin linkage towards HF and TFA steps: Dependence on the C-terminal amino acid and peptide length. *Chem. Pharm. Bull. Tokyo*, 47, 1560-1563. #14239

383. Juvvadi, P., Vunnam, S., Yoo, B., & Merrifield, R.B. (1999) Structure-activity studies of normal and retro pig cecropin-melittin hybrids. *J. Pept. Res.*, 53, 244-251. #12874

384. Kaiser, T., Luppa, P., & Voelter, W. (1999) Solid-phase synthesis, isolation and analysis of a mouse protein, the macrophage migration inhibitory factor. *J. Chromatogr.*, 852, 189-195. #13536

385. Kates, S.A., Cammish, L.E., & Albericio, F. (1999) Continuous-flow solid-phase peptide synthesis using polystyrene resins. *J. Pept. Res.*, 53, 682-683. #12986

386. Kim, Y., Zeng, F.W., & Zimmerman, S.C. (1999) Peptide dendrimers from natural amino acids. *Chem. Eur. J.*, 5, 2133-2138. #13539

387. Kim, Y.D., Cho, B.K., Park, J.I., Lee, S.H. & Kim, H.J. (1999) Solid phase peptide synthesis using 2-(4-nitrophenyl) sulfonylthiocarbonyl (Nsc) amino acids for salmon calcitonin. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 315-318). Mayflower Scientific Limited, Birmingham. #13702

388. Kiso, Y., Matsumoto, H., Mizumoto, S., Kimura, T., Fujiwara, Y., & Akaji, K. (1999) Small dipeptide-based HIV protease inhibitors containing the hydroxymethylcarbonyl isostere as an ideal transition-state mimic. *Biopolymers (Pept. Sci.)*, 51, 59-68. #13095

389. Koeller, K.M., & Wong, C.H. (1999) Synthesis of biologically active glycopeptides. *J. Chin. Chem. Soc.*, 46, 659-685. #15144

390. Kohlbau, H.J., Meisenbach, M., Echner, H. & Voelter, W. (1999) Introduction of different methoxy-substituted 9-phenyl-9-fluorenylamine linkers: Mildly cleavable anchoring groups for the synthesis of peptide amides. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 319-322). Mayflower Scientific Limited, Birmingham. #13703

391. Kolodziejczyk, A.S., Sugajska, E., Falkiewicz, B., & Wisniewski, K. (1999) The application of the Pmc-protecting group to reduced peptide bond synthesis. *Synlett*, 1606-1608. #15150

392. Komba, S., Meldal, M., Werdelin, O., Jensen, T., & Bock, K. (1999) Convenient synthesis of Thr and Ser carrying the tumor associated sialyl-(2-->3)-T antigen as building blocks for solid-phase glycopeptide synthesis. *J. Chem. Soc. Perkin Trans. 1*, 415-419. #12647

393. Koppitz, M., Matha, B., & Kessler, H. (1999) Structure investigation of amphiphilic cyclopeptides in isotropic and anisotropic environments: A model study simulating peptide-membrane interactions. *J. Peptide Sci.*, 5, 507-518. #14439

394. Kramer, A., Reineke, U., Dong, L., Hoffmann, B., Hoffmuller, U., Winkler, D., Volkmer-Engert, R., & Schneider-Mergener, J. (1999) Spot synthesis: Observations and optimizations. *J. Pept. Res.*, 54, 319-327. #12753

395. Kudryavtseva, E.V., Sidorova, M.V., Molokoedov, A.S., Ovchinnikov, M.V., & Bespalova, Z.D. (1999) Directed and spontaneous disulfide bond closure by hydrogen peroxide during the synthesis of endothelin 1 and endothelin 3 [Russian]. *Bioorganicheskaiia Khimiia*, 25, 107-116. #12991

396. Kuisle, O., Lolo, M., Quinoa, E., & Riguera, R. (1999) Monitoring the solid-phase synthesis of depsides and depsipeptides. A color test for hydroxyl groups linked to a resin. *Tetrahedron*, 55, 14807-14812. #14044

397. Kuisle, O., Quinoa, E., & Riguera, R. (1999) A general methodology for automated solid-phase synthesis of depsides and depsipeptides. Preparation of a valinomycin analogue. *J. Org. Chem.*, 64, 8063-8075. #14045

398. Kutterer, K.M.K., Barnes, M.L., & Arya, P. (1999) Automated, solid-phase synthesis of C-neoglycopeptides: Coupling of glycosyl derivatives to resin-bound peptides. *Journal of Combinatorial Chemistry*, 1, 28-31. #12039 (Available on Internet)

399. Kuttner, G., Kramer, A., Schmidtke, G., Giessmann, E., Dong, L., Roggenbuck, D., Scholz, C., Seifert, M., Stigler, R.D., Schneider-Mergener, J., Porstmann, T., & Hohne, W. (1999) Characterization of neutralizing anti-pre-S1 and anti-pre-S2 (HBV) monoclonal antibodies and their fragments. *Mol. Immunol.*, 36, 669-683. #13808

400. Kwak, J., Jefferson, E.A., Bhumralkar, M., & Goodman, M. (1999) Triple helical stabilities of guest-host collagen mimetic structures. *Bioorg. Med. Chem.*, 7, 153-160. #12771

401. Lanter, C.L., Guiles, J.W., & Rivero, R.A. (1999) The solid-phase synthesis of novel 14-membered macrocycles for high throughput screening. *Mol. Diversity*, 4, 149-153. #12996

402. Lauer, J.L. & Fields, G.B. (1999) Protein-like molecular structure: Synthesis and application for inducing cellular receptor binding and signal transduction. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 185-188). Mayflower Scientific Limited, Birmingham. #13671

403. Lebl, M., Pires, J., Poncar, P., & Pokorny, V. (1999) Evaluation of gaseous hydrogen fluoride as a convenient reagent for parallel cleavage from the solid support. *Journal of Combinatorial Chemistry*, 1, 474-479. #13836

404. Lebl, M. (1999) Parallel personal comments on "classical" papers in combinatorial chemistry. *Journal of Combinatorial Chemistry*, 1, 3-24. #12028 (Available on Internet)

405. Lee, H.B., & Balasubramanian, S. (1999) Studies on a dithiane-protected benzoin photolabile safety catch linker for solid-phase synthesis. *J. Org. Chem.*, 64, 3454-3460. #12877

406. Lee, K., Hwang, S.Y., & Park, C.W. (1999) Thrombin inhibitors based on a propargylglycine template. *Bioorg. Med. Chem. Lett.*, 9, 1013-1018. #12998

407. Lew, B.M., Mills, K.V., & Paulus, H. (1999) Characteristics of protein splicing in trans mediated by a semisynthetic split intein. *Biopolymers (Pept. Sci.)*, 51, 355-362. #14271

408. Li, P., & Xu, J.C. (1999) BOMI: A novel peptide coupling reagent. *Tetrahedron Lett.*, 40, 3605-3608. #12690

409. Li, S.H., & Dass, C. (1999) Iron(III)-immobilized metal ion affinity chromatography and mass spectrometry for the purification and characterization of synthetic phosphopeptides. *Anal. Biochem.*, 270, 9-14. #13001

410. Li, X.X., Cheng, Y.Z., Zhang, L.G., & Zhang, L.H. (1999) Synthesis of spin labeled conjugate of peptide and peptide nucleic acid. *Syn. Commun.*, 29, 1519-1525. #13002

411. Liehr, S., & Chenault, H.K. (1999) A comparison of the alpha-helix forming propensities and hydrogen bonding properties of serine phosphate and alpha-amino-gamma-phosphonobutyric acid. *Bioorg. Med. Chem. Lett.*, 9, 2759-2762. #15174

412. Limal, D., Semetey, V., Dalbon, P., Jolivet, M., & Briand, J.P. (1999) Solid-phase synthesis of N,N'-unsymmetrically substituted ureas: Application to the synthesis of carbaza peptides. *Tetrahedron Lett.*, 40, 2749-2752. #12650

413. Lippens, G., Bourdonneau, M., Dhalluin, C., Warrass, R., Richert, T., Seetharaman, C., Boutillet, C., & Piotto, M. (1999) Study of compounds attached to solid supports using high resolution magic angle spinning NMR. *Current Organic Chemistry*, 3, 147-169. #12774

414. Lisowski, M., Stasiak, M., & Leplawy, M.T. (1999) The study on helix-inducing propensity of alpha-hydroxymethylserine based on the host-guest approach. *Polish J. Chem.*, 73, 313-319. #12775

415. Litowski, J.R., Semchuk, P.D., Mant, C.T., & Hodges, R.S. (1999) Hydrophilic interaction/cation-exchange chromatography for

the purification of synthetic peptides from closely related impurities: Serine side-chain acetylated peptides. *J. Pept. Res.*, 54, 1-11. #13550

416. Lohse, A., Jensen, K.B., & Bols, M. (1999) The first combinatorial library of azasugar glycosidase inhibitors. *Tetrahedron Lett.*, 40, 3033-3036. #12679

417. Lu, W.Y., Randal, M., Kossiakoff, A., & Kent, S.B.H. (1999) Probing intermolecular backbone H-bonding in serine proteinase-protein inhibitor complexes. *Chem. Biol.*, 6, 419-427. #13554

418. Luke, R.W.A. & Boyce, P.G.T. (1999) Design, synthesis and characterization of a beta-turn mimic library. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 335-338). Mayflower Scientific Limited, Birmingham. #13706

419. Lundquist, J.T., & Dix, T.A. (1999) Synthesis and human neurotensin receptor binding activities of neurotensin(8-13) analogues containing position 8 alpha-azido-N-alkylated derivatives of ornithine, lysine, and homolysine. *J. Med. Chem.*, 42, 4914-4918. #14066

420. Madder, A., Farcy, N., Hosten, N.G.C., De Muynck, H., De Clercq, P.J., Barry, J., & Davis, A.P. (1999) A novel sensitive colorimetric assay for visual detection of solid-phase bound amines. *Eur. J. Org. Chem.*, 2787-2791. #15987

421. Malik, Z., Amir, S., Pal, G., Buzas, Z., Varallyay, E., Antal, J., Szilagyi, Z., Vekey, K., Asboth, B., Patthy, A., & Graf, L. (1999) Proteinase inhibitors from desert locust, *Schistocerca gregaria*: Engineering of both P-1 and P-1' residues converts a potent chymotrypsin inhibitor to a potent trypsin. *Biochimica et Biophysica Acta - Protein Structure and Molecular Enzymology*, 1434, 143-150. #14069

422. Manning, M., Stoev, S., Cheng, L.L., Wo, N.C., & Chan, W.Y. (1999) Synthesis and structure-activity investigation of novel vasopressin hypotensive peptide agonists. *J. Peptide Sci.*, 5, 472-490. #14070

423. Marastoni, M., Guerrini, R., Balboni, G., Salvadori, S., Fantin, G., Fogagnolo, M., Lazarus, L.H., & Tomatis, R. (1999) Opioid deltorphin C analogues containing cis- or trans-2- or 3- or 4-aminocyclohexanecarboxylic acid residues. *Arzneim. -Forsch.*, 49, 6-12. #12779

424. Marcaurelle, L.A., & Bertozzi, C.R. (1999) New directions in the synthesis of glycopeptide mimetics. *Chem. Eur. J.*, 5, 1384-1390. #13010

425. Martin, F., Steinkuhler, C., Brunetti, M., Pessi, A., Cortese, R., De Francesco, R., & Sollazzo, M. (1999) A loop-mimetic inhibitor of the HCV-NS3 protease derived from a minibody. *Protein Eng.*, 12, 1005-1011. #14074

426. Maruyama, T., Ikeo, T., & Ueki, M. (1999) A rapid and facile method for the preparation of peptide disulfides. *Tetrahedron Lett.*, 40, 5031-5034. #13111

427. Matusina, Z., Olbrimkova, R., Votavova, H., Neumann, J., Hradilek, M., Soucek, M., Malon, P., Kodicek, M., & Stibor, I. (1999) Linear heptapeptides containing DNA-intercalators. Synthesis and interaction with DNA. *Collect. Czech. Chem. Commun.*, 64, 1419-1432. #15202

428. Matysiak, S., Boldicke, T., Tegge, W. & Frank, R. (1999) Fmoc-Lys(Mmt)-OH: A convenient building block for the preparation of branched and cyclic peptides. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 339-340). Mayflower Scientific Limited, Birmingham. #13707

429. Mayfield, L.D., & Corey, D.R. (1999) Enhancing solid phase synthesis by a noncovalent protection strategy-efficient coupling of rhodamine to resin-bound peptide nucleic acids. *Bioorg. Med. Chem. Lett.*, 9, 1419-1422. #12881

430. McBride, J.D., Freeman, N. & Leatherbarrow, R.J. (1999) Selection of human elastase inhibitors from a conformationally-constrained combinatorial peptide library. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 167-172). Mayflower Scientific Limited, Birmingham. #13670

431. Meisenbach, M., Echner, H., Kohlbau, H.J. & Voelter, W. (1999) Methoxy substituted 9-phenylxanthenylamine linkers: Useful tools for the solid phase synthesis of protected peptide peptide amides. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 345-348). Mayflower Scientific Limited, Birmingham. #13708

432. Meldal, M., Tornoe, C., Tedebark, U., Jansson, A.M., Juliano, M.A., Panza, L. & Lay, L. (1999) Azido acids in a novel method of

solid phase synthesis. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 19-22). Mayflower Scientific Limited, Birmingham. #13453

433. Melnyk, O., Rommens, C., & Gras-Masse, H. (1999) Chemistry of hydrazinopeptides: A new hydroperoxydeamination process. *Tetrahedron Lett.*, 40, 1491-1494. #12601

434. Merette, S.A.M., Green, D., Patel, G., Scully, M.F., Kakkar, V.V. & Deadman, J.J. (1999) A general method for N to C terminal solid phase peptide synthesis applied to bioactive peptidic boronates. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 349-350). Mayflower Scientific Limited, Birmingham. #13709

435. Mergler, M., Dick, F., Gosteli, J., & Nyfeler, R. (1999) Solid phase synthesis of fully protected peptide alcohols. *Tetrahedron Lett.*, 40, 4663-4664. #13015

436. Mergler, M. & Nyfeler, R. (1999) Polymeric diphenyldiazomethane: A useful resin for SPPS and solid phase organic chemistry. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 351-35). Mayflower Scientific Limited, Birmingham. #13710

437. Mergler, M., Gosteli, J., Grogg, P., Nyfeler, P., & Tanner, R. (1999) SASRIN(TM), a versatile tool in peptide synthesis and solid-phase organic chemistry. *Chimia*, 53, 29-34. #12782

438. Mezo, G., Majer, Z., Valero, M.L., Andreu, D., & Hudecz, F. (1999) Synthesis of cyclic Herpes simplex virus peptides containing 281-284 epitope of glycoprotein D-1 in endo- or exo-position. *J. Peptide Sci.*, 5, 272-282. #13108

439. Mezo, G., Mihala, N., Koczan, G. & Hudecz, F. (1999) Application of cyclohexyloxycarbonyl protecting group in Boc chemistry for the synthesis of protected peptide fragment. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 355-356). Mayflower Scientific Limited, Birmingham. #13711

440. Miranda, L.P., & Alewood, P.F. (1999) Accelerated chemical synthesis of peptides and small proteins. *Proc. Natl. Acad. Sci. USA*, 96, 1181-1186. #12785

441. Mizuno, M., Haneda, K., Iguchi, R., Muramoto, I., Kawakami, T., Aimoto, S., Yamamoto, K., & Inazu, T. (1999) Synthesis of a glycopeptide containing oligosaccharides: Chemoenzymatic synthesis of eel calcitonin analogues having natural N-linked oligosaccharides. *J. Amer. Chem. Soc.*, 121, 284-290. #12786

442. Morris, M.C., Mery, J., Heitz, A., Heitz, F., & Divita, G. (1999) Design and synthesis of a peptide derived from positions 195-244 of human cdc25C phosphatase. *J. Peptide Sci.*, 5, 263-271. #13107

443. Muller, B., Besser, D., Kleinwachter, P., Arad, O., & Reissmann, S. (1999) Synthesis of N-carboxyalkyl and N-aminoalkyl functionalized dipeptide building units for the assembly of backbone cyclic peptides. *J. Pept. Res.*, 54, 383-393. #14086

444. Nagase, T. (1999) Development of peptidic endothelin receptor antagonists: Elucidating physiological roles of endothelin and medicinal chemistry efforts toward its receptor antagonists [Japanese]. *J. Syn. Org. Chem. Jpn.*, 57, 888-897. #15213

445. Nagy, I.B., Mak, M., Varga, I., Kovacs, J., Fellinger, E. & Hudecz, F. (1999) Solid phase synthesis of KDEL peptides labelled with fluorophore and/or bifunctional chelating agent for receptor localisation. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 229-230). Mayflower Scientific Limited, Birmingham. #13682

446. Niidome, T., Anzai, S., Sonoda, J., Tokunaga, Y., Nakahara, M., Hatakeyama, T., & Aoyagi, H. (1999) Effect of amino acid substitution in amphiphilic α -helical peptides on peptide-phospholipid membrane interaction. *J. Peptide Sci.*, 5, 298-305. #14432

447. Nishiyama, Y., & Kurita, K. (1999) Cyclohexyl ether as a new hydroxy-protecting group for serine in solid-phase peptide synthesis. *Tetrahedron Lett.*, 40, 927-930. #12248

448. Nokihara, K. & Yasuhara, T. (1999) Highly efficient preparation of 7KDa peptides by single coupling assembly without capping followed by a single step of purification using reverse-phase HPLC. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 105-110). Mayflower Scientific Limited, Birmingham. #13658

449. Offer, J., Quibell, M. & Johnson, T. (1999) A new generation of reversible backbone amide protection. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 357-360). Mayflower Scientific Limited, Birmingham. #13712

450. Oh, J.E., Hong, S.Y., & Lee, K.H. (1999) Design, synthesis and characterization of antimicrobial pseudopeptides corresponding to membrane-active peptide. *J. Pept. Res.*, 54, 129-136. #13576

451. Ota, M., Sawa, A., Nio, N., & Ariyoshi, Y. (1999) Enzymatic ligation for synthesis of single-chain analogue of monellin by transglutaminase. *Biopolymers*, 50, 193-200. #13023

452. Ottl, J., Musiol, H.J., & Moroder, L. (1999) Heterotrimeric collagen peptides containing functional epitopes, synthesis of single-stranded collagen type I peptides related to the collagenase cleavage site. *J. Peptide Sci.*, 5, 103-110. #12793

453. Ottl, J., & Moroder, L. (1999) Disulfide-bridged heterotrimeric collagen peptides containing the collagenase cleavage site of collagen type I. Synthesis and conformational properties. *J. Amer. Chem. Soc.*, 121, 653-661. #12794

454. Overkleft, H.S., Verhelst, S.H.L., Pieterman, E., Meeuwenoord, N.J., Overhand, M., Cohen, L.H., van der Marel, G.A., & van Boom, J.H. (1999) Design and synthesis of a protein: Farnesyltransferase inhibitor based on sugar amino acids. *Tetrahedron Lett.*, 40, 4103-4106. #12898

455. Panek, Z., Pavlik, M. & Flegel, M. (1999) Asparagine as racemization sensitive site in analogs of neurohypophyseal hormones. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 365-366). Mayflower Scientific Limited, Birmingham. #13714

456. Papageorgopoulos, C., Caldwell, K., Shackleton, C., Schweingrubber, H., & Hellerstein, M.K. (1999) Measuring protein synthesis by mass isotopomer distribution analysis (MIDA). *Anal. Biochem.*, 267, 1-16. #12799

457. Paris, M., Pothion, C., Heitz, A., Rocheblave, L., Rouch, F., Fehrentz, J.A. & Martinez, J. (1999) Solid phase synthesis of peptide aldehydes. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 15-18). Mayflower Scientific Limited, Birmingham. #13452

458. Paris, M., Douat, C., Heitz, A., Gibbons, W., Martinez, J., & Fehrentz, J.A. (1999) Post-synthesis modification of aspartyl or glutamyl residue side-chains on solid support. *Tetrahedron Lett.*, 40, 5179-5182. #13118

459. Patel, G., Husman, W., Jehanli, A.M., Deadman, J.J., Green, D., Kakkar, V.V., & Brennand, D.M. (1999) A cyclic peptide analogue of the loop III region of platelet-derived growth factor-BB is a synthetic antigen for the native protein. *J. Pept. Res.*, 53, 68-74. #12654

460. Patterson, J.A., & Ramage, R. (1999) Solid phase synthesis of peptide C-terminal semicarbazones and aldehydes. *Tetrahedron Lett.*, 40, 6121-6124. #13579

461. Pearce, A.J., Ramaya, S., Thorn, S.N., Bloomberg, G.B., Walter, D.S., & Gallagher, T. (1999) C-glycosyl tyrosines. Synthesis and incorporation into C-glycopeptides. *J. Org. Chem.*, 64, 5453-5462. #13580

462. Pedersen, W.B., Almdal, K., Winther, L., & Berg, R.H. (1999) R.D. Forskningscenter Riso. Grafted cross-linked polyolefin substrates for peptide synthesis and assays. US Patent. 5,886,104. 569,255, #13154

463. Pegeraro, S., Besse, D., Fiori, S., Rudolph-Bohner, S., Watanabe, T.X., Kimura, T. & Moroder, L. (1999) Synthesis and folding properties of selenocystine-containing peptides. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 89-92). Mayflower Scientific Limited, Birmingham. #13466

464. Peluso, S., Dumy, P., Nkubana, C., Yokokawa, Y., & Mutter, M. (1999) Solid-phase strategies for the assembly of template-based protein mimetics. *J. Org. Chem.*, 64, 7114-7120. #13816

465. Peng, Z.H. (1999) Solid phase synthesis and NMR conformational studies on cyclic decapeptide template molecule. *Biopolymers*, 49, 565-574. #12884

466. Peng, Z.H. (1999) NMR conformational analysis on cyclic decapeptide template molecule. *Can. J. Chem.*, 77, 1394-1404. #13817

467. Pennington, M.W., Baur, P., Westling, J. & Dunn, B.M. (1999) Using 2-chlorotriyl resin tactics for the preparation of DABCYL-EDANS derivatized peptides: Application to a fluorogenic substrate for an aspartyl proteinase from human malaria parasite. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 367-370). Mayflower Scientific Limited, Birmingham. #13715

468. Peri, F., Grell, D., Dumy, P., Yokokawa, Y., Welzenbach, K., Weitz-Schmidt, G., & Mutter, M. (1999) Assembly of binding loops on aromatic templates as VCAM-1 mimetics. *J. Peptide Sci.*, 5, 313-322. #14433

469. Perich, J.W., Black, C.L., Huq, N.L., & Reynolds, E.C. (1999) Epitope analysis of the multiphosphorylated peptide aS1-casein(59-79). *J. Peptide Sci.*, 5, 221-233. #14429

470. Peterson, J.J., Pak, R.H., & Meares, C.F. (1999) Total solid-phase synthesis of 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid-functionalized peptides for radioimmunotherapy. *Bioconjug. Chem.*, 10, 316-320. #12656

471. Pinilla, C., Martin, R., Gran, B., Appel, J.R., Boggiano, C., Wilson, D.B., & Houghten, R.A. (1999) Exploring immunological specificity using synthetic peptide combinatorial libraries. *Curr. Opin. Immunol.*, 11, 193-202. #12800

472. Poupart, M.A., Fazal, G., Goulet, S., & Mar, L.T. (1999) Solid-phase synthesis of peptidyl trifluoromethyl ketones. *J. Org. Chem.*, 64, 1356-1361. #12658

473. Ramage, R., Jiang, L., Kim, Y.D., Shaw, K., Park, J.L., & Kim, H.J. (1999) Comparative studies of Nsc and Fmoc as Na-protecting groups for SPPS. *J. Peptide Sci.*, 5, 195-200. #12903

474. Reineke, U., Kramer, A., & Schneider-Mergener, J. (1999) Antigen sequence- and library-based mapping of linear and discontinuous protein-protein-interaction sites by spot synthesis. *Curr. Topics Microbiol. Immunol.*, 243, 23-36. #13750

475. Renil, M., & Pillai, V.N.R. (1999) Solid-phase peptide synthesis using a new PS-TTEGDA resin: Synthesis of pardaxin (1-26). *Ind. J. Chem. B-Org. Chem. Med. Chem.*, 38, 1030-1035. #15267

476. Rinnova, M., Lebl, M., & Soucek, M. (1999) Solid-phase peptide synthesis by fragment condensation: Coupling in swelling volume. *Lett. Peptide Sci.*, 6, 15-22. #13834

477. Rinnova, M., Soucek, M., Voburka, Z., Lebl, M. & Fusek, M. (1999) Sanger's reagent: An excellent end-capping and/or labeling agent for SPPS. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 385-386). Mayflower Scientific Limited, Birmingham. #13719

478. Rivier, J.E., Kirby, D.A., Lahrichi, S.L., Corrigan, A., Vale, W.W., & Rivier, C.L. (1999) Constrained corticotropin releasing factor antagonists (astressin analogues) with long duration of action in the rat. *J. Med. Chem.*, 42, 3175-3182. #13591

479. Robertson, N., & Ramage, R. (1999) Total chemical synthesis of deglycosylated human erythropoietin. *J. Chem. Soc.*, 1015-1021. #13038

480. Robertson, N., Jiang, L., & Ramage, R. (1999) Racemisation studies of a novel coupling reagent for solid phase peptide synthesis. *Tetrahedron*, 55, 2713-2720. #12660

481. Robinson, B.M., Tellam, D.J., Smart, D., Mohammad, Y.N., Brennand, J., Rivier, J.E., & Lovejoy, D.A. (1999) Cloning and characterization of corticotropin-releasing factor and urocortin in Syrian hamster (*Mesocricetus auratus*). *Peptides*, 20, 1177-1185. #14118

482. Roggero, M.A., Servis, C. & Corradin, G. (1999) Purification of synthetic polypeptides by immobilized metal affinity chromatography and methionine chemistry. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 111-114). Mayflower Scientific Limited, Birmingham. #13659

483. Roice, M., Kumar, K.S., & Pillai, V.N.R. (1999) Synthesis, characterization, and application of butanediol dimethacrylate cross-linked polystyrene: A flexible support for gel phase peptide synthesis. *Macromolecules*, 32, 8807-8815. #15276

484. Rose, K., & Vizzavona, J. (1999) Stepwise solid-phase synthesis of polyamides as linkers. *J. Amer. Chem. Soc.*, 121, 7034-7038. #13592

485. Rosenthal, K., Erlandsson, M., & Und n, A. (1999) 4-(3-Hydroxy-4-methylpentyl)phenylacetic acid as a new linker for the solid phase synthesis of peptides with Boc chemistry. *Tetrahedron Lett.*, 40, 377-380. #12106

486. Sampson, W.R., Patsiouras, H., & Ede, N.J. (1999) The synthesis of 'difficult' peptides using 2-hydroxy-4-methoxybenzyl or pseudoproline amino acid building blocks: A comparative study. *J. Peptide Sci.*, 5, 403-409. #14125

487. Samson, F., Bonnet, D., Rommens, C., Gras-Masse, H., & Melnyk, O. (1999) Reactivity of Lys(NH₂)-containing peptides toward endopeptidases. *J. Peptide Sci.*, 5, 352-359. #14422

488. Sanz-Nebot, V., Garces, A., & Barbosa, J. (1999) Investigation of crudes of synthesis of carbetocin by liquid chromatography coupled to electrospray ionization mass spectrometry. *J. Chromatogr.*, 833, 267-275. #13041

489. Sanz-Nebot, V., Toro, I., & Barbosa, J. (1999) Fractionation and characterization of a crude peptide mixture from the synthesis of eleodoisin by liquid chromatography-electrospray ionization mass spectrometry. *J. Chromatogr. A*, 846, 25-38. #13418

490. Sanz-Nebot, V., Toro, I., Garces, A., & Barbosa, J. (1999) Separation and identification of peptide mixtures in a synthesis crude of carbetocin by liquid chromatography/electrospray ionization mass spectrometry. *Rapid Commun. Mass Spectrom.*, 13, 2341-2347. #15292

491. Sasaki, Y., Suto, T., Ambo, A., Ouchi, H., & Yamamoto, Y. (1999) Biological properties of opioid peptides replacing Tyr at position 1 by 2,6-dimethyl-Tyr. *Chem. Pharm. Bull. Tokyo*, 47, 1506-1509. #14128

492. Scheller, A., Oehlke, J., Wiesner, B., Dathe, M., Krause, E., Beyermann, M., Melzig, M., & Bienert, M. (1999) Structural requirements for cellular uptake of α -helical amphipathic peptides. *J. Peptide Sci.*, 5, 185-194. #12902

493. Scott, R.H., Barnes, C., Gerhard, U., & Balasubramanian, S. (1999) Exploring a chemical encoding strategy for combinatorial synthesis using Friedel-Crafts alkylation. *Chem. Commun.*, 1331-1332. #13821

494. Seebach, D., Abele, S., Gademann, K., & Jaun, B. (1999) Pleated sheets and turns of beta-peptides with proteinogenic side chains. *Angew. Chem.*, 1595-1597. #13047

495. Seitz, O. (1999) Solid phase synthesis of protected peptide nucleic acids. *Tetrahedron Lett.*, 40, 4161-4164. #12889

496. Sheridan, J.M., Hayes, G. & Austen, B.M. (1999) Convergent solid phase synthesis of immunoglobulin-like domains of macrophage specific Fc receptor (Fc_gRI). In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 391-394). Mayflower Scientific Limited, Birmingham. #13721

497. Sheridan, J.M., Hayes, G.M., & Austen, B.M. (1999) Solid-phase synthesis and cyclization of a large branched peptide from IgG Fc with affinity for Fc gamma RI. *J. Peptide Sci.*, 5, 555-562. #14138

498. Shin, Y., Winans, K.A., Backes, B.J., Kent, S.B.H., Ellman, J.A., & Bertozzi, C.R. (1999) Fmoc-based synthesis of peptide-(alpha) thioesters: Application to the total chemical synthesis of a glycoprotein by native chemical ligation. *J. Amer. Chem. Soc.*, 121, 11684-11689. #14141

499. Sidorova, M.V., Molokoedov, A.S., Azmuko, A.A., Stambolskii, D.V., Kashirina, N.M., Bochkov, V.N., Tkachuk, V.A., & Bespalova, Z.D. (1999) Antibodies to synthetic peptide fragments of T-cadherin as inhibitors of T-cadherin binding to low density lipoproteins [Russian]. *Bioorganicheskaiia Khimiia*, 25, 171-178. #13051

500. Siev, D.V., Gaudette, J.A., & Semple, J.E. (1999) Novel protocol for the solid-phase synthesis of peptidyl and peptidomimetic P1-argininal derivatives. *Tetrahedron Lett.*, 40, 5123-5127. #13117

501. Sithigorngul, P., Panchan, N., Vilaivan, T., Sithigorngul, W., & Petsom, A. (1999) Immunochemical analysis and immunocytochemical localization of crustacean hyperglycemic hormone from the eyestalk of *Macrobrachium rosenbergii*. *Comparative Biochemistry and Physiology B-Biochemistry and Molecular Biology*, 124, 73-80. #14146

502. Sjolin, P., George, S.K., Bergquist, K.E., Roy, S., Svensson, A., & Kihlberg, J. (1999) Synthesis of deoxy and alanine-substituted derivatives of a T cell stimulating glycopeptide: An investigation of conditions for cleavage from the solid phase and deprotection. *J. Chem. Soc. Perkin Trans. 1*, 1731-1742. #13421

503. Slootstra, J.W., Schaaper, W.M.M., Puijk, W.C., Ligtvoet, G.J., Kuperus, D. & Meloen, R.H. (1999) Contribution of solid-phase in antibody binding activity of synthetic peptides. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 300-400). Mayflower Scientific Limited, Birmingham. #13722

504. Smith, A.B., Benowitz, A.B., Sprengeler, P.A., Barbosa, J., Guzman, M.C., Hirschmann, R., Schweiger, E.J., Bolin, D.R., Nagy, Z., Campbell, R.M., Cox, D.C., & Olson, G.L. (1999) Design and synthesis of a competent pyrrolinone-peptide hybrid ligand for the class II major histocompatibility complex protein HLA-DR1. *J. Amer. Chem. Soc.*, 121, 9286-9298. #14147

505. Smith, M.D., & Fleet, G.W.J. (1999) Designing secondary structures: 5-Azidomethyl tetrahydrofuran-2-carboxylates as carbohydrate-derived dipeptide isosteres. *J. Peptide Sci.*, 5, 425-441. #14435

506. Soth, M.J., & Nowick, J.S. (1999) A peptide/oligourea/azapeptide hybrid that adopts a hairpin turn. *J. Org. Chem.*, 64, 276-281. #12447

507. Spetzler, J.C., & Hoeg-Jensen, T. (1999) Preparation and application of O-amino-serine, Ams, a new building block in chemoselective ligation chemistry. *J. Peptide Sci.*, 5, 582-592. #14150

508. St.Hilaire, P.M., Willert, M., Juliano, M.A., Juliano, L., & Meldal, M. (1999) Fluorescence-quenched solid phase combinatorial libraries in the characterization of cysteine protease substrate specificity. *Journal of Combinatorial Chemistry*, 1, 509-523. #14151

509. St.Hilaire, P.M., Cipolla, L., Franco, A., Tedebar, U., Tilly, D.A., & Meldal, M. (1999) Synthesis of T-antigen-containing glycopeptides as potential cancer vaccines. *J. Chem. Soc. Perkin Trans. 1*, 3559-3564. #14152

510. Stoev, S., Cheng, L.L., Olma, A., Klis, W.A., Manning, M., Sawyer, W.H., Wo, N.C., & Chan, W.Y. (1999) An investigation of position 3 in arginine vasopressin with aliphatic, aromatic, conformationally-restricted, polar and charged amino acids. *J. Peptide Sci.*, 5, 141-153. #12816

511. Suguro, T., & Yanai, M. (1999) Solid-phase synthesis of cyclooctadepsipeptide N-4909 using a cyclization-cleavage method with oxime resin. *Journal of Antibiotics*, 52, 835-838. #14157

512. Szekely, Z., Zakhariev, S., Guarnaccia, C., Antcheva, N., & Pongor, S. (1999) A highly effective method for synthesis of N-omega-substituted arginines as building blocks for Boc/Fmoc peptide chemistry. *Tetrahedron Lett.*, 40, 4439-4442. #13059

513. Tam, J.P., Lu, Y.A., & Yu, Q.T. (1999) Thia zip reaction for synthesis of large cyclic peptides: Mechanisms and applications. *J. Amer. Chem. Soc.*, 121, 4316-4324. #13062

514. Tam, J.P., Yu, Q., & Miao, Z. (1999) Orthogonal ligation strategies for peptide and protein. *Biopolymers (Pept. Sci.)*, 51, 311-332. #14269

515. Tatsu, Y., Shigeri, Y., Ishida, A., Kameshita, I., Fujisawa, H., & Yumoto, N. (1999) Synthesis of caged peptides using caged lysine: Application to the synthesis of caged AIP, a highly specific inhibitor of calmodulin-dependent protein kinase II. *Bioorg. Med. Chem. Lett.*, 9, 1093-1096. #13064

516. Thieriet, N., Alsina, J., Dessolin, M., Guillerez, M.G., Giralt, E., Albericio, F., Loffet, A. & Guibe, F. (1999) PhSiH3/Palladium catalyst/carboxyactivated aminoacids: A ternary system for tandem deprotection coupling of Na --allocaminoacids and suppression of DKP formation in SPPS. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 127-128). Mayflower Scientific Limited, Birmingham. #13662

517. Tholey, A., Lindemann, A., Kinzel, V., & Reed, J. (1999) Direct effects of phosphorylation on the preferred backbone conformation of peptides: A nuclear magnetic resonance study. *Biophys. J.*, 76, -87. #12454

518. Thorpe, D.S., Yeoman, H., Chan, A.W.E., Krchnak, V., Lebl, M., & Felder, S. (1999) Combinatorial chemistry reveals a new motif that binds the platelet fibrinogen receptor, gpIIbIIIa. *Biochem. Biophys. Res. Commun.*, 256, 537-541. #12667

519. Tomboly, C., Spetea, M., Borsodi, A., & Toth, G. (1999) Synthesis of tritium labelled endomorphin II and its stability in the radioreceptor assay. *Czechoslovak Journal of Physics*, 49, 896. #13065

520. Tsai, J.H., Waldman, A.S., & Nowick, J.S. (1999) Two new beta-strand mimics. *Bioorg. Med. Chem.*, 7, 29-38. #12824

521. Ueki, M., Ikeo, T., Iwadate, M., Asakura, T., Williamson, M.P., & Slaninova, J. (1999) Solid phase synthesis and biological activities of [Arg(8)]-vasopressin methylenedithioether. *Bioorg. Med. Chem. Lett.*, 9, 1767-1772. #13068

522. Utkin, Y.N., Zhmak, M.N., Methfessel, C., & Tsetlin, V.I. (1999) Aromatic substitutions in alpha-conotoxin ImI. Synthesis of iodinated photoactivatable derivative. *Toxicon*, 37, 1683-1695. #14176

523. Valero, M.L., Giralt, E., & Andreu, D. (1999) A comparative study of cyclization strategies applied to the synthesis of head-to-tail cyclic analogs of a viral epitope. *J. Pept. Res.*, 53, 56-67. #12668

524. Varkey, J.T., & Pillai, V.N.R. (1999) Merrifield resin and 1,6-hexanediol diacrylate-crosslinked polystyrene resin for solid-phase peptide synthesis: A comparative study. *J. Appl. Polym. Sci.*, 71, 1933-1939. #12460

525. Varkey, J.T., & Pillai, V.N.R. (1999) Solid phase synthesis of hydrophobic peptides on 1,6-hexanediol diacrylate cross-linked polystyrene resin. *J. Peptide Sci.*, 5, 577-581. #14179

526. Vazquez, E., Caamano, A.M., Castedo, L., Gramberg, D., & Mascarenas, J.L. (1999) A practical approach to orthogonally connected oligopyrrole-peptide conjugates. *Tetrahedron Lett.*, 40, 3625-3628. #12692

527. Vazquez, E., Caamano, A.M., Castedo, L., & Mascarenas, J.L. (1999) An Fmoc solid-phase approach to linear polypyrrrole-peptide conjugates. *Tetrahedron Lett.*, 40, 3621-3624. #12691

528. Vella, F., Hernandez, J.F., Molla, A., Block, M.R., & Arlaud, G.J. (1999) Grafting an RGD motif onto an epidermal growth factor-like module: chemical synthesis and functional characterization of the chimeric molecule. *J. Pept. Res.*, 54, 415-426. #14180

529. Veprek, P., & Jezek, J. (1999) Peptide and glycopeptide dendrimers. Part II. *J. Peptide Sci.*, 5, 203-220. #13069

530. Veprek, P., & Jezek, J. (1999) Peptide and glycopeptide dendrimers. Part I. *J. Peptide Sci.*, 5, 5-23. #12828

531. Vetter, S. (1999) High-affinity non-inhibitory ligands for alkaline phosphatase revealed from a restricted heptapeptide library. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 407-410). Mayflower Scientific Limited, Birmingham. #13723

532. Voelter, W., Kaiser, T., Hannappel, E., & Echner, H. (1999) Synthesis of Thymosin beta(Xen)(4) and its comparison with the natural tritetraconopeptide. *Journal fur Praktische Chemie-Chemiker-Zeitung*, 341, 47-51. #12830

533. Wang, P., Landon, M., Layfield, R., Mayer, R.J. & Ramage, R. (1999) Transfer active ester condensation: A novel technique used for peptide segment coupling. In R. Epton (Ed.), *Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries*. (pp. 415-416). Mayflower Scientific Limited, Birmingham. #13724

534. Wang, W., & McMurray, J.S. (1999) A selective method for the preparation of primary amides: Synthesis of Fmoc-L-4-carboxamidophenylalanine and other compounds. *Tetrahedron Lett.*, 40, 2501-2504. #12677

535. Wildemann, D., Drewello, M., Fischer, G., & Schutkowski, M. (1999) Extremely selective Mg(ClO₄)₂ mediated removal of Bpoc/Ddz moieties suitable for the solid phase peptide synthesis of thioxo peptides. *Chem. Commun.*, 1809-1810. #13829

536. Wu, Y.D., & Wang, D.P. (1999) Theoretical study on side-chain control of the 14-helix and the 10/12-helix of beta-peptides. *J. Amer. Chem. Soc.*, 121, 9352-9362. #14195

537. Wu, Y.T., Hsieh, H.P., Chen, S.T., & Wang, K.T. (1999) Direct solid phase synthesis of biologically active peptide alcohols. *J. Chin. Chem. Soc.*, 46, 135-138. #13077

538. Xu, J.X., & Jin, S. (1999) Studies on synthesis, structure and antitumor activities of analogues of papaver somniferum pollen tridecapeptide [Chinese]. *Chem. J. Chin. Univ.*, 20, 722-726. #13079

539. Yang, L., & Morriello, G. (1999) Solid phase synthesis of 'head-to-tail' cyclic peptides using a sulfonamide 'safety-catch' linker: The cleavage by cyclization approach. *Tetrahedron Lett.*, 40, 8197-8200. #13839

540. Yao, S., & Chmielewski, J. (1999) A pH-tunable peptide ligase. *Biopolymers (Pept. Sci.)*, 51, 370-375. #14273

541. Yao, Z.J., Gao, Y., Voigt, J.H., Ford, H., & Burke, T.R. (1999) Synthesis of Fmoc-protected 4-carboxydifluoromethyl-L-phenylalanine: A phosphotyrosyl mimetic of potential use for signal transduction studies. *Tetrahedron*, 55, 2865-2874. #12838

542. Yao, Z.J., King, C.R., Cao, T., Kelley, J., Milne, G.W.A., Voigt, J.H., & Burke, T.R. (1999) Potent inhibition of Grb2 SH2 domain binding by non-phosphate-containing ligands. *J. Med. Chem.*, 42, 25-35. #12475

543. Yoshida, K., Ohmori, N., Mukai, Y., Niidome, T., Hatakeyama, T., & Aoyagi, H. (1999) Interaction of bundled Ser-rich amphiphilic peptides with phospholipid membranes. *J. Peptide Sci.*, 5, 360-367. #14423

544. Yoshikawa, M., Fujisawa, T., & Izumi, J. (1999) Molecularly imprinted polymeric membranes having EFF derivatives as a chiral

recognition site. *Macromolecular Chemistry and Physics*, 200, 1458-1465. #13088

545. Yu, C.X., & Taylor, J.W. (1999) Synthesis and study of peptides with semirigid i and i+7 side-chain bridges designed for alpha-helix stabilization. *Bioorg. Med. Chem.*, 7, 161-175. #12839

546. Zhang, H., Wang, Y., Thurmer, R., Al-Qawasmeh, R.A., & Voelter, W. (1999) Total synthesis of the nephritogenoside glycopeptide. *Polish J. Chem.*, 73, 101-115. #12842

547. Zhang, H., Wang, Y.L., Thurmer, R., Parvez, K., Choudhary, I., Atta, u.R., & Voelter, W. (1999) Neighbouring group participation of C-6 substituents of glucose derivatives on the stereoselectivity of the N-glycosidic linkage of glycopeptides. *Zeitschrift fur Naturforschung Section B-A Journal of Chemical Sciences*, 54, 692-698. #13089

548. Zhang, L.S., & Tam, J.P. (1999) Lactone and lactam library synthesis by silver ion-assisted orthogonal cyclization of unprotected peptides. *J. Amer. Chem. Soc.*, 121, 3311-3320. #12897

549. Zheng, A., Shan, D., & Wang, B. (1999) A redox-sensitive resin linker for the solid phase synthesis of C-terminal modified peptides. *J. Org. Chem.*, 64, 156-161. #12199

550. Zheng, A.L., Shan, D.X., Shi, X.L., & Wang, B.H. (1999) A novel resin linker for solid-phase peptide synthesis which can be cleaved using two sequential mild reactions. *J. Org. Chem.*, 64, 7459-7466. #14205

551. Abdelmoaty-Khalil, I. (1998) Solid-state chemistry of organic compounds. Bradeis University, Waltham, MA, USA; 1 p. UMI, Order No.DA9829810. #11469

552. Albericio, F., Bofill, J.M., El-Faham, A., & Kates, S.A. (1998) Use of onium salt-based coupling reagents in peptide synthesis. *J. Org. Chem.*, 63, 9678-9683. #12300

553. Albert, R., Smith-Jones, P., Stoltz, B., Simeon, C., Knecht, H., Bruns, C., & Pless, J. (1998) Direct synthesis of [DOTA-DPhe(1)]-octreotide and [DOTA-DPhe(1),Tyr(3)]-octreotide (SMT487): Two conjugates for systemic delivery of radiotherapeutic nuclides to somatostatin receptor positive tumors in man. *Bioorg. Med. Chem. Lett.*, 8, 1207-1210. #11096

554. Aldrian-Herrada, G., Rabie, A., Wintersteiger, R., & Brugidou, J. (1998) Solid-phase synthesis of peptide nucleic acid (PNA) monomers and their oligomerization using disulphide anchoring linkers. *J. Peptide Sci.*, 4, 266-281. #10878

555. Andell-Jonsson, S., & Bartfai, T. (1998) Identification of the spinal degradation products and inhibition of adenylate cyclase by recombinant rat galanin message-associated peptide. *Neuropeptides*, 32, 191-196. #11101

556. Anderssen, E.L., Diep, D.B., Nes, I.F., Eijsink, V.G.H., & Nissenmeyer, J. (1998) Antagonistic activity of lactobacillus plantarum C11: Two new two-peptide bacteriocins, plantaricins EF and JK, and the induction factor plantaricin A. *Appl. Environ. Microbiol.*, 64, 2269-2272. #11089

557. Angeletti, R.H., Bibbs, L., Bonewald, L.F., Fields, G.B., Kelly, J.W., McMurray, J.S., Moore, W.T. & Weintraub, S.T. (1998) A multicenter study of racemization during "standard" solid phase peptide synthesis. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 207-208). Mayflower Scientific Ltd., Kingswinford. #11501

558. Annis, D.A., Helluin, O., & Jacobsen, E.N. (1998) Stereochemistry as a diversity element: Solid-phase synthesis of cyclic RGD peptide derivatives by asymmetric catalysis. *Angew. Chem. Int. Ed.*, 37, 1907-1909. #11251

559. Annis, I., Chen, L., & Barany, G. (1998) Novel solid-phase reagents for facile formation of intramolecular disulfide bridges in peptides under mild conditions. *J. Amer. Chem. Soc.*, 120, 7226-7238. #12235

560. Asche, G., Kunz, H., Nar, H., Koppen, H., Briem, H., Pook, K.H., Schiller, P.W., Chung, N.N., Lemieux, C., & Esser, F. (1998) Synthesis of cyclic dipeptide templates, their incorporation into peptides and studies on their conformational and biological properties. *J. Pept. Res.*, 51, 323-336. #11140

561. Aubagnac, J.L., Enjalbal, C., Subra, G., Bray, A.M., Combarieu, R., & Martinez, J. (1998) Application of time-of-flight secondary ion mass spectrometry to in situ monitoring of solid-phase peptide synthesis on the Multipin(TM) system. *J. Mass Spectrom.*, 33, 1094-1103. #12136

562. Augustyns, K., Kraas, W., & Jung, G. (1998) Investigation on the stability of the Dde protecting group used in peptide synthesis:

Migration to an unprotected lysine. *Int. J. Peptide Prot. Res.*, 51, 127-133. #10732

563. Avdagic, A., & Sunjic, V. (1998) Biocatalytic deracemization of 1,4-benzodiazepines in the synthesis of enantiomerically pure serine. *Helv. Chim. Acta*, 81, 85-92. #10684

564. Barlos, K., Gatos, D., & Koutsogianni, S. (1998) Fmoc/Trt amino acids: Comparison to Fmoc/tBu amino acids in peptide synthesis. *Int. J. Peptide Prot. Res.*, 51, 194-200. #10710

565. Belhadj Jrad, B., & Bahraoui, E. (1998) Antigenicity of linear and cyclic peptides mimicking the disulfide loops in HIV-2 envelope glycoprotein: Synthesis, reoxidation and purification. *J. Pept. Res.*, 51, 370-385. #11548

566. Beltran, M., Pedroso, E., & Grandas, A. (1998) A comparison of histidine protecting groups in the synthesis of peptide-oligonucleotide conjugates. *Tetrahedron Lett.*, 39, 4115-4118. #10841

567. Bengtsson, M., Broddefalk, J., Dahmen, J., Henriksson, K., Kihlberg, J., Lonn, H., Srinivasa, B.R., & Stenvall, K. (1998) Convergent synthesis of neoglycopeptides by coupling of 2-bromoethyl glycosides to cysteine and homocysteine residues in T cell stimulating peptides. *Glycoconjugate J.*, 15, 223-231. #10703

568. Bezay, N., Fuchs, G., Habermann, J., Liebe, B., Lohr, B., Seitz, O. & Kunz, H. (1998) Allylic anchoring groups in solid phase peptide synthesis. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 257-258). Mayflower Scientific Ltd., Kingswinford. #11502

569. Bianco, A., Zabel, C., Walden, P., & Jung, G. (1998) N-hydroxy-amide analogues of MHC-class I peptide ligands with nanomolar binding affinities. *J. Peptide Sci.*, 4, 471-478. #12313

570. Bleicher, K.H., & Wareing, J.R. (1998) PhFl acetic acid: A new linker for solid phase organic synthesis. *Tetrahedron Lett.*, 39, 4591-4594. #11164

571. Blondelle, S.E., Nefzi, A., Ostresh, J.M., & Houghten, R.A. (1998) Novel antifungal compounds derived from heterocyclic positional scanning. *Combinatorial libraries. Pure Appl. Chem.*, 70, 2107-2145. #12907

572. Boeijen, A., & Liskamp, R.M.J. (1998) Sequencing of peptoid peptidomimetics by Edman degradation. *Tetrahedron Lett.*, 39, 3589-3592. #10810

573. Bose, D.S., & Lakshminarayana, V. (1998) An efficient and highly selective cleavage of N-tert-butoxycarbonyl group under microwave irradiation. *Tetrahedron Lett.*, 39, 5631-5634. #10955

574. Bosze, S., Kajtar, J., Szabo, R., Falus, A., & Hudecz, F. (1998) Synthesis, solution conformation and interleukin-6-related activities of interleukin-6 peptides. *J. Pept. Res.*, 52, 216-228. #11826

575. Broddefalk, J., Bergquist, K.E., & Kihlberg, J. (1998) Use of acid-labile protective groups for carbohydrate moieties in synthesis of glycopeptides related to type II collagen. *Tetrahedron*, 54, 12047-12070. #11828

576. Bunin, B.A. (1998) The Combinatorial Index. Academic Press, San Diego. ISBN 0121413403 #10496

577. Burke, T.R., Yao, Z.J., Zhao, H., Milne, G.W.A., Wu, L., Zhang, Z.Y., & Voigt, J.H. (1998) Enantioselective synthesis of nonphosphorus-containing phosphotyrosyl mimetics and their use in the preparation of tyrosine phosphatase inhibitory peptides. *Tetrahedron*, 54, 9981-9994. #11262

578. Caciagli, V., Cardinali, F., Righetti, G. & Lombardi, P. (1998) Sterically hindered amino acids in SPPS: A study of their coupling reactions under dilute conditions. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 283-284). Mayflower Scientific Ltd., Kingswinford. #11555

579. Camarero, J.A., Ayers, B., & Muir, T.W. (1998) Studying receptor-ligand interactions using encoded amino acid scanning. *Biochemistry*, 37, 7487-7495. #11094

580. Camarero, J.A., Cotton, G.J., Adeva, A., & Muir, T.W. (1998) Chemical ligation of unprotected peptides directly from a solid support. *J. Pept. Res.*, 51, 303-316. #11165

581. Campian, E., Peterson, M.L., Saneii, H.H. & Furka, A. (1998) Automated synthesis in a single process of nine first order sub-

libraries of an amino acid occurrence library. In R. Ramage & R. Epton (Eds.), Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium. (pp. 285-286). Mayflower Scientific Ltd., Kingswinford. #11503

582. Campian, E., Chou, J., Peterson, M.L., Saneii, H.H. & Furka, A. (1998) Synthesis and applicability of monomer tester mixtures. In R. Ramage & R. Epton (Eds.), Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium. (pp. 131-134). Mayflower Scientific Ltd., Kingswinford. #11494

583. Campian, E., Peterson, M.L., Saneii, H.H., & Furka, A. (1998) Deconvolution by omission libraries. *Bioorg. Med. Chem. Lett.*, 8, 2357-2362. #11207

584. Carell, T., Schmid, H., & Reinhard, M. (1998) Efficient syntheses of a flavin and an 8-hydroxy-5-deazaflavin amino acid and their incorporation into oligopeptides. *J. Org. Chem.*, 63, 8741-8747. #12325

585. Carrasco, M.R., Fitzgerald, M.C. & Kent, S.B.H. (1998) Real-time analysis of solid phase peptide synthesis reactions by matrix-assisted laser desorption/ionization mass spectrometry. In R. Ramage & R. Epton (Eds.), Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium. (pp. 293-294). Mayflower Scientific Ltd., Kingswinford. #11504

586. Cavallaro, V., Thompson, P., & Hearn, M. (1998) Solid phase synthesis of cyclic peptides: Model studies involving i-(i+4) side chain-to-side chain cyclization. *J. Peptide Sci.*, 4, 335-343. #11264

587. Cervini, L.A., Donaldson, C.J., Koerber, S.C., Vale, W.W., & Rivier, J.E. (1998) Human growth hormone-releasing hormone hGHRH(1-29)-NH₂: Systematic structure-activity relationship studies. *J. Med. Chem.*, 41, 717-727. #10702

588. Chargelegue, D., Obeid, O.E., Hsu, S.C., Shaw, M.D., Denbury, A.N., Taylor, G., & Steward, M.W. (1998) A peptide mimic of a protective epitope of respiratory syncytial virus selected from a combinatorial library induces virus-neutralizing antibodies and reduces viral load in vivo. *J. Virol.*, 72, 2040-2046. #10580

589. Chen, B. & Turner, A.P.F. (1998) Generation of a peptide library in searching for a specific binding ligand for glycosylated haemoglobin HbA(1C). In R. Ramage & R. Epton (Eds.), Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium. (pp. 305-306). Mayflower Scientific Ltd., Kingswinford. #11505

590. Chen, H., Pyluck, A.L., Janik, M., & Sampson, N.S. (1998) Peptides corresponding to the epidermal growth factor-like domain of mouse fertilin: Synthesis and biological activity. *Biopolymers*, 47, 299-307. #12329

591. Chhabra, S.R., Hothi, B., Evans, D.J., White, P.D., Bycroft, B.W., & Chan, W.C. (1998) An appraisal of new variants of the Dde amine protecting group for solid phase peptide synthesis. *Tetrahedron Lett.*, 39, 1603-1606. #10494

592. Chhabra, S.R., Khan, A.N., & Bycroft, B.W. (1998) Versatile Dde-based primary amine linkers for solid phase synthesis. *Tetrahedron Lett.*, 39, 3585-3588. #10809

593. Chillemi, F., Francescato, P., Fraccari, A., & Galatulas, I. (1998) Synthesis and cytotoxic activity of new peptides containing basic amino acid residues. *Anticancer Res.*, 18, 757-758. #11547

594. Chin, J., Fell, J.B., Jarosinski, M., Shapiro, M.J., & Wareing, J.R. (1998) HPLC/NMR in combinatorial chemistry. *J. Org. Chem.*, 63, 386-390. #10682

595. Cho, C.Y., Youngquist, R.S., Paikoff, S.J., Beresini, M.H., Hebert, A.R., Berleau, L.T., Liu, C.W., Wemmer, D.E., Keough, T., & Schultz, P.G. (1998) Synthesis and screening of linear and cyclic oligocarbamate libraries: Discovery of high affinity ligands for GPIIb/IIIa. *J. Amer. Chem. Soc.*, 120, 7706-7718. #11266

596. Choma, C.T., Robillard, G.T., & Englebretsen, D.R. (1998) Synthesis of hydrophobic peptides: An Fmoc "solutibilising tail" method. *Tetrahedron Lett.*, 39, 2417-2420. #10596

597. Dallaire, C., & Arya, P. (1998) Synthesis of new building blocks: Towards the analogs of peptide nucleic acids (PNAs). *Tetrahedron Lett.*, 39, 5129-5132. #10892

598. Daniels, S.B., Hantman, S.F., Sole, N.A., Gibney, B.R., Rabanal, F. & Kates, S.A. (1998) Pioneer(TM): A continuous-flow peptide synthesis system. In R. Ramage & R. Epton (Eds.), Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium. (pp. 323-324). Mayflower Scientific Ltd., Kingswinford. #11506

599. De Filippis, V., Quarzago, D., Vindigni, A., Dicera, E., & Fontana, A. (1998) Synthesis and characterization of more potent analogues of hirudin fragment 1-47 containing non-natural amino acids. *Biochemistry*, 37, 13507-13515. #11838

600. Dendrinos, K.G., & Kalivretenos, A.G. (1998) Synthesis of N-hydroxysuccinimide esters using polymer bound HOBT. *Tetrahedron Lett.*, 39, 1321-1324. #10512

601. Dettin, M., Scarinci, C., Zanotto, C., Roncon, R., De Rossi, A., & Di Bello, C. (1998) Biological and conformational studies on analogues of a synthetic peptide enhancing HIV-1 infection. *J. Peptide Sci.*, 4, 436-448. #12342

602. Dettin, M., Scarinci, C., Zanotto, C., Cabrelle, A., De Rossi, A., & Di Bello, C. (1998) Design, synthesis and CD4 binding studies of a fluorescent analogue of a peptide that enhances HIV-1 infectivity. *Int. J. Peptide Prot. Res.*, 51, 110-115. #10731

603. Di Fenza, A., Tancredi, M., Galoppini, C., & Rovero, P. (1998) Racemization studies of Fmoc-Ser(tBu)-OH during stepwise continuous-flow solid-phase peptide synthesis. *Tetrahedron Lett.*, 39, 8529-8532. #11945

604. Di Modugno, F., Rosano, L., Castelli, M., & Chersi, A. (1998) Isolation, characterization and comparison of antipeptide and antiprotein rabbit antibodies to the pi-isoform of glutathione S-transferase. *Zeitschrift fur Naturforschung Section C-A Journal of Biosciences*, 53, 902-910. #12343

605. Dick, F., Fritschi, U., Haas, G., Hassler, O., Nyfeler, R. & Rapp, E. (1998) Solid phase synthesis of cyclic peptides using Fmoc strategy. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 339-340). Mayflower Scientific Ltd., Kingswinford. #11556

606. Dittrich, F., Tegge, W., & Frank, R. (1998) "Cut and combine": An easy membrane-supported combinatorial synthesis technique. *Bioorg. Med. Chem. Lett.*, 8, 2351-2356. #11206

607. Dominguez, E., O'Donnell, M.J., & Scott, W.L. (1998) Solid-phase synthesis of substituted glutamic acid derivatives via Michael addition reactions. *Tetrahedron Lett.*, 39, 2167-2170. #10601

608. Dooley, C.T., & Houghten, R.A. (1998) Synthesis and screening of positional scanning combinatorial libraries. *Methods Mol. Biol.*, 87, 13-24. #10564

609. Dooley, C.T., Ny, P., Bidlack, J.M., & Houghten, R.A. (1998) Selective ligands for the mu, delta, and kappa opioid receptors identified from a single mixture based tetrapeptide positional scanning combinatorial library. *Journal of Biological Chemistry*, 273, 18848-18856. #11274

610. Dorff, P.H., Chiu, G., Goldstein, S.W., & Morgan, B.P. (1998) Solid phase synthesis of phosphinopeptoids as transition state analog inhibitors. *Tetrahedron Lett.*, 39, 3375-3378. #10803

611. Drakopoulou, E., Vizzavona, J., Neyton, J., Aniort, V., Bouet, F., Virelizier, H., Menez, A., & Vita, C. (1998) Consequence of the removal of evolutionary conserved disulfide bridges on the structure and function of charybdotoxin and evidence that particular cysteine spacings govern specific disulfide bond formation. *Biochemistry*, 37, 1292-1301. #10586

612. Efimov, V.A., Choob, M.V., Buryakova, A.A., Kalinkina, A.L., & Chakhmakhcheva, O.G. (1998) Synthesis and evaluation of some properties of chimeric oligomers containing PNA and phosphono-PNA residues. *Nucl. Acid. Res.*, 26, 566-575. #10736

613. Eggenweiler, H.M., Clausen, N. & Bayer, E. (1998) A new base-labile linker for Boc solid phase peptide synthesis. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 359-360). Mayflower Scientific Ltd., Kingswinford. #11510

614. El-Faham, A. (1998) Bis(tetramethylene)fluoroformamidinium hexafluorophosphate(BTFFK): A convenient coupling reagent for solid phase peptide synthesis. *Chem. Lett.*, 671-672. #11276

615. Englebretsen, D.R., Choma, C.T., & Robillard, G.T. (1998) Synthesis of a designed transmembrane protein by thioether ligation of solubilised segments: N-alpha-haloacetylated peptides survived resin cleavage using TFA with EDT as scavenger. *Tetrahedron Lett.*, 39, 4929-4932. #10936

616. Erlandsson, M. & Und n, A. (1998) Reduction of aromatic nitro groups in peptides on solid phase. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 367-368). Mayflower Scientific Ltd., Kingswinford. #11557

617. Fauq, A.H., Hong, F., Cusack, B., Tyler, B.M., Ping-Pang, Y., & Richelson, E. (1998) Synthesis of (2S)-2-amino-3-(1H-4-indolyl) propanoic acid, a novel tryptophan analog for structural modification of bioactive peptides. *Tetrahedron-Asymmetry*, 9, 4127-4134. #12352

618. Fehrentz, J.A., Paris, M., Heitz, A., Velek, J., Winternitz, F. & Martinez, J. (1998) Solid phase synthesis of C-terminal peptide aldehydes: Study on two different linkers and on C-terminal residue epimerisation. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 375-376). Mayflower Scientific Ltd., Kingswinford. #11558

619. Feierth, S., Wiesmuller, K.H. & Jung, G. (1998) Combinatorial head-to-tail cyclized peptide libraries: Evolution of synthetic and analytical methods based on 517 cyclohexapeptides. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 157-160). Mayflower Scientific Ltd., Kingswinford. #11497

620. Fernandez-Garcia, C., Prager, K., McKervey, M.A., Walker, B., & Williams, C.H. (1998) Solid phase synthesis of N-carboxy alkyl-containing peptides derived from enantiopure alpha-keto-beta-aminoacids. *Bioorg. Med. Chem. Lett.*, 8, 433-436. #10692

621. Fields, G.B., Lauer, J.L., Dori, Y., Forns, P., Yu, Y.C., & Tirrell, M. (1998) Proteinlike molecular architecture: Biomaterial applications for inducing cellular receptor binding and signal transduction. *Biopolymers (Pept. Sci.)*, 47, 143-151. #10665

622. Fletcher, M.D., & Campbell, M.M. (1998) Partially modified retro-inverso peptides: Development, synthesis, and conformational behavior. *Chem. Rev.*, 98, 763-795. #11003

623. Fretz, H. (1998) O-(Carboxydifluoromethyl)-L-tyrosine: Design and synthesis of a novel non phosphorous-containing phosphotyrosine isostere. *Tetrahedron*, 54, 4849-4858. #10998

624. Friedler, A., Zakai, N., Karni, O., Broder, Y.C., Baraz, L., Kotler, M., Loyter, A., & Gilon, C. (1998) Backbone cyclic peptide, which mimics the nuclear localization signal of human immunodeficiency virus type 1 matrix protein, inhibits nuclear import and virus production in nondividing cells. *Biochemistry*, 37, 5616-5622. #11102

625. Fu, J.M., & Castelhano, A.L. (1998) Design and synthesis of a pyridone-based phosphotyrosine mimetic. *Bioorg. Med. Chem. Lett.*, 8, 2813-2816. #12355

626. Fukuda, H., Irie, K., Nakahara, A., Oie, K., Ohigashi, H., & Wender, P.A. (1998) Synthesis and binding studies of the 116-mer peptide containing the double cysteine-rich motifs of protein kinase C gamma. *Tetrahedron Lett.*, 39, 7943-7946. #11805

627. Funakoshi, S., Murayama, E., Guo, L., Fujii, N., & Yajima, H. (1998) A modified benzhydrylamine as a handle reagent for the solid phase synthesis of peptide amides based on the fluorenylmethoxycarbonyl method. *J. Chem. Soc. Chem. Commun.*, 382-384. #11957

628. Furet, P., Gay, B., Caravatti, G., Garcia-Echeverria, C., Rahuel, J., Schoepfer, J., & Fretz, H. (1998) Structure-based design and synthesis of high affinity tripeptide ligands of the Grb2-SH2 domain. *J. Med. Chem.*, 41, 3442-3449. #11846

629. Furlan, R.L.E., & Mata, E.G. (1998) Transprotection in solid phase peptide synthesis: Easy conversion of Fmoc carbamates into Boc carbamates. *Tetrahedron Lett.*, 39, 6421-6422. #11230

630. Futaki, S. (1998) Peptide synthesis aiming at elucidation and creation of protein functions [Japanese]. *Yakugaku Zasshi - Journal of the Pharmaceutical Society of Japan*, 118, 493-510. #12356

631. Garzotti, M., Rovatti, L., & Hamdan, M. (1998) Investigation of bombolitin complexes with mercury by liquid chromatography tandem mass spectrometry. *Rapid Commun. Mass Spectrom.*, 12, 61-68. #10186

632. Garzotti, M., & Hamdan, M. (1998) Liquid chromatography/tandem mass spectrometry of synthesis products associated with the viral protein US11. *Rapid Commun. Mass Spectrom.*, 12, 843-848. #11009

633. Gennari, C., Gude, M., Potenza, D., & Piarulli, U. (1998) Hydrogen-bonding donor/acceptor scales in beta-sulfonamidopeptides. *Chem. Eur. J.*, 4, 1924-1931. #11848

634. Gilon, C., Huenges, M., Matha, B., Gellerman, G., Hornik, V., Afargan, M., Amitay, O., Ziv, O., Feller, E., Gamliel, A., Shohat, D., Wanger, M., Arad, O., & Kessler, H. (1998) A backbone-cyclic, receptor 5-selective somatostatin analogue: Synthesis, bioactivity, and nuclear magnetic resonance conformational analysis. *J. Med. Chem.*, 41, 919-929. #11541

635. Goodman, M., Bhumralkar, M., Jefferson, E.A., Kwak, J., & Locardi, E. (1998) Collagen mimetics. *Biopolymers (Pept. Sci.)*, 47, 127-142. #10701

636. Goodwin, T.E., Holland, R.D., Lay, J.O.Jr., & Raney, K.D. (1998) A simple procedure for solid-phase synthesis of peptide nucleic acids with N-terminal cysteine. *Bioorg. Med. Chem. Lett.*, 8, 2231-2234. #11188

637. Greenberg, W.A., Baird, E.E., & Dervan, P.B. (1998) A comparison of H-pin and hairpin polyamide motifs for the recognition of the minor groove of DNA. *Chem. Eur. J.*, 4, 796-805. #10949

638. Guibe, F. (1998) Allylic protecting groups and their use in a complex environment. Part II. Allylic protecting groups and their removal through catalytic palladium pi-allyl methodology [review]. *Tetrahedron*, 54, 2967-3042. #10655

639. Guichard, G., Abele, S., & Seebach, D. (1998) Preparation of N-Fmoc-protected beta(2)- and beta(3)-amino acids and their use as building blocks for the solid-phase synthesis of beta-peptides. *Helv. Chim. Acta*, 81, 187-206. #10669

640. Gulyas, E.C., Soos, K., Varga, J., Toth, G., & Penke, B. (1998) Synthesis of tritium-labelled beta-amyloid fragments. *J. Label. Compound. Radiopharm.*, 41, 763-771. #11291

641. Haas, K., Ponikwar, W., Noth, H., & Beck, W. (1998) Facile synthesis of cyclic tetrapeptides from nonactivated peptide esters on metal centers. *Angew. Chem. Int. Ed.*, 37, 1086-1089. #10974

642. Habermann, J., & Kunz, H. (1998) Fragment condensation on solid-phase in the synthesis of an amphiphilic glycopeptide from the homophilic recognition domain of epithelial cadherin 1. *Tetrahedron Lett.*, 39, 4797-4800. #10934

643. Habermann, J., & Kunz, H. (1998) Glycopeptide synthesis using O-pentafluorophenyluronium salts as novel condensing reagents. *Journal fur Praktische Chemie-Chemiker-Zeitung*, 340, 233-239. #11000

644. Habermann, J., & Kunz, H. (1998) Solid-phase synthesis of a glycopeptide from the homophilic recognition domain of epithelial cadherin 1 using a O-pentafluorophenyluronium salt. *Tetrahedron Lett.*, 39, 265-268. #9873

645. Hackeng, T.M., Dawson, P.E., Kent, S.B.H., & Griffin, J.H. (1998) Chemical synthesis of human protein s thrombin-sensitive module and first epidermal growth factor module. *Biopolymers*, 46, 53-63. #11067

646. Hall, B.J., & Sutherland, J.D. (1998) A practical method for the combinatorial synthesis of peptide aldehydes. *Tetrahedron Lett.*, 39, 6593-6596. #11232

647. Hawthorne, S.J., Pagano, M., Harriott, P., Halton, D.W., & Walker, B. (1998) The synthesis and utilization of 2,4-dinitrophenyl-labeled irreversible peptidyl diazomethyl ketone inhibitors. *Anal. Biochem.*, 261, 131-138. #11852

648. Hemmer, B., Vergelli, M., Pinilla, C., Houghten, R., & Martin, R. (1998) Probing degeneracy in T-cell recognition using peptide combinatorial libraries. *Immunol. Today*, 19, 163-168. #11151

649. Hemmer, B., Vergelli, M., Gran, B., Ling, N., Conlon, P., Pinilla, C., Houghten, R., McFarland, H.F., & Martin, R. (1998) Cutting edge: Predictable TCR antigen recognition based on peptide scans leads to the identification of agonist ligands with no sequence homology. *Journal of Immunology*, 160, 3631-3636. #11692

650. Henkel, B., & Bayer, E. (1998) Monitoring of solid phase peptide synthesis by FT-IR spectroscopy. *J. Peptide Sci.*, 4, 461-470. #12369

651. Hirschmann, R. (1998) Peptide related research: A means to further biological and chemical understanding. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 3-17). Mayflower Scientific Ltd., Kingswinford. #11476

652. Hirschmann, R., Yao, W., Arison, B., Maechler, L., Rosegay, A., Sprengeler, P.A., & Smith, A.B.I. (1998) Synthesis of the first tricyclic homodetic peptide: Use of coordinated orthogonal deprotection to achieve directed ring closure. *Tetrahedron*, 54, 7179-7202. #10948

653. Hlavacek, J., Tykva, R., Bennetova, B., & Barth, T. (1998) The C-terminus shortened analogs of the insect peptide oostatic hormone with accelerated activity. *Bioorg. Chem.*, 26, 131-140. #12370

654. Holm, J., Linse, S., & Kihlberg, J. (1998) Synthesis of an N-linked glycopeptide from vitamin K-dependent protein S. *Tetrahedron*, 54, 11995-12006. #11855

655. Hsieh, H.P., Wu, Y.T., Chen, S.T., & Wang, K.T. (1998) Dihydropyran-2-carboxylic acid, a novel bifunctional linker for the solid-phase synthesis of peptides containing a C-terminal alcohol. *Chem. Commun.*, 649-650. #11030

656. Inazu, T., Haneda, K., & Mizuno, M. (1998) Synthetic study on N-glycopeptides. *J. Syn. Org. Chem. Jpn.*, 56, 210-220. #11048

657. Jacobs, J.W., Patel, D.V., Yuan, Z., Holmes, C.P., Schulke, J., Antonenko, V.V., Grove, J.R., Kulikov, N., Maclean, D., Navre, M., Nguyen, C., Shi, L., Sundaram, A. & Sundberg, S.A. (1998) Light-directed chemical synthesis of positionally encoded peptide arrays. In E.M. Gordon & J.F.J. Kerwin (Eds.), *Combinatorial Chemistry and Molecular Diversity in Drug Discovery*. (pp. 111-131). John Wiley & Sons, New York. #11710

658. Jaskiewicz, A., Lesner, A., Rozycki, J., Kupryszecki, G., & Rolka, K. (1998) Analogue of Cucurbita maxima trypsin inhibitor III (CMTI-III) with all L-cysteine residues substituted by L-penicillamine (Pen). Synthesis and evaluation of trypsin inhibitory activity. *Polish J. Chem.*, 72, 2537-2540. #12379

659. Jensen, K.J., Alsina, J., Songster, M.F., Vagner, J., Albericio, F., & Barany, G. (1998) Backbone amide linker (BAL) strategy for solid-phase synthesis of C-terminal-modified and cyclic peptides. *J. Amer. Chem. Soc.*, 120, 5441-5452. #10931

660. Jezek, J., Velek, J., Trnka, T., Pisacka, M. & Marecek, F. (1998) Solid phase synthesis of glycopeptide dendrimers with Tn antigenic structure and their biological activities. In R. Ramage & R. Epton (Eds.), *Peptides 1996*. (pp. 503-504). Mayflower, London. #14411

661. Jiang, L., Davison, A., Tenant, G., & Ramage, R. (1998) Synthesis and application of a novel coupling reagent, ethyl 1-hydroxy-1H-1,2,3-triazole-4-carboxylate. *Tetrahedron*, 54, 14233-14254. #12380

662. Jones, D.S., Gamino, C.A., & Randow, M.E. (1998) Synthesis of a cyclic-thioether peptide which binds anti-cardiolipin antibodies. *Tetrahedron Lett.*, 39, 6107-6110. #11023

663. Jonsson, D., Molin, H., & Und n, A. (1998) Solid phase synthesis of tropane derivatives. *Tetrahedron Lett.*, 39, 1059-1062. #10678

664. Kaplan, B.E., Hefta, L.J., Blake, R.C., II, Swiderek, K.M., & Shively, J.E. (1998) Solid-phase synthesis and characterization of carcinoembryonic antigen (CEA) domains. *J. Pept. Res.*, 52, 249-260. #12165

665. Karawajczyk, B., Wysocki, J., Kunikowska, D., Mackiewicz, Z., Glosnicka, R., Korzeniowski, A., Gorski, J., & Kupryszecki, G. (1998) Synthesis of human heat shock protein 70 (29-42) fragment and evaluation of its immunogenicity. *Polish J. Chem.*, 72, 1017-1020. #10944

666. Karawajczyk, B., Mackiewicz, Z., Kunikowska, D., Dziadziuszko, H., Deratomaszewska, B., Glosnicka, R., & Kupryszecki, G. (1998) Synthesis of hepatitis c virus protein fragments and evaluation of their immunogenicity. *Polish J. Chem.*, 72, 84-88. #10497

667. Karigiannis, G., Mamos, P., Balayiannis, G., Katsoulis, I., & Papaioannou, D. (1998) Simple fragment syntheses of all four isomers of the spermine alkaloid kukoamine. *Tetrahedron Lett.*, 39, 5117-5120. #10923

668. Karlsson, K.F., Walse, B., Drakenberg, T., Roy, S., Bergquist, K.E., Pinkner, J.S., Hultgren, S.J., & Kihlberg, J. (1998) Binding of peptides in solution by the *Escherichia coli* chaperone PapD as revealed using an inhibition ELISA and NMR spectroscopy. *Bioorg. Med. Chem.*, 6, 2085-2101. #12381

669. Kassim, S.Y., Restrepo, I.M., & Kalivretenos, A.G. (1998) Synthesis and purification of hydrophobic peptides for use in biomimetic ion channels. *J. Chromatogr.*, A., 11-20. #11299

670. Kawakami, T., Yoshimura, S., & Aimoto, S. (1998) Synthesis of reaper, a cysteine-containing polypeptide, using a peptide thioester in the presence of silver chloride as an activator. *Tetrahedron Lett.*, 39, 7901-7904. #11804

671. Kellam, B., Drouillat, B., Dekany, G., Starr, M.S., & Toth, I. (1998) Synthesis and in vitro evaluation of lipoamino acid and carbohydrate-modified enkephalins as potential antinociceptive agents. *Int. J. Pharm.*, 161, 55-64. #10699

672. Kent, S.B.H., Bark, S.J., Canne, L.E., Dawson, P.E., Fitzgerald, M.C., Hackeng, T., Lu, W. & Muir, T. (1998) Total chemical synthesis of proteins as a probe of structure and function. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the*

Twenty-Fourth European Peptide Symposium. (pp. 187-192). Mayflower Scientific Ltd., Kingswinford. #11554

673. Klugmann, K., Kunikowska, D., Glosnicka, R., & Mackiewicz, Z. (1998) Synthesis of flagellin fragments and studies of their interactions with antibodies. Part I. Polish J. Chem., 72, 2093-2097. #11868

674. Ko, D.H., Kim, D.J., Lyu, C.S., Min, I.K., & Moon, H.S. (1998) New cleavage approaches to combinatorial synthesis of homoserine lactones. Tetrahedron Lett., 39, 297-300. #9875

675. Koerber, S.C., Gulyas, J., Lahrichi, S.L., Corrigan, A., Craig, A.G., Rivier, C., Vale, W., & Rivier, J. (1998) Constrained corticotropin-releasing factor (CRF) agonists and antagonists with i-(i+3) Glu-Xaa-DXbb-Lys bridges. J. Med. Chem., 41, 5002-5011. #12385

676. Kohmura, M., & Ariyoshi, Y. (1998) Chemical synthesis and characterization of the sweet protein mabinlin II. Biopolymers, 46, 215-223. #11545

677. Konno, K., Hisada, M., Itagaki, Y., Naoki, H., Kawai, N., Miwa, A., Yasuhara, T., & Takayama, H. (1998) Isolation and structure of pompilidotoxins, novel peptide neurotoxins in solitary wasp venoms. Biochem. Biophys. Res. Commun., 250, 612-616. #11869

678. Kosaganov, Y.N., Stetsenko, D.A., Lubyako, E.N., Kvitko, N.P., & Lazurkin, Y.S. (1998) Stability of DNA complexes with peptide-nucleic acid. Mol. Biol., 32, 105-108. #11174

679. Krambovitis, E., Hatzidakis, G., & Barlos, K. (1998) Preparation of MUC-1 oligomers using an improved convergent solid-phase peptide synthesis. Journal of Biological Chemistry, 273, 10874-10879. #11119

680. Kruijtzer, J.A.W., Hofmeyer, L.J.F., Heerma, W., Versluis, C., & Liskamp, R.M.J. (1998) Solid-phase syntheses of peptoids using Fmoc-protected N-substituted glycines: The synthesis of (retro)peptoids of Leu-enkephalin and substance P. Chem. Eur. J., 4, 1570-1580. #11305

681. Kudryavtseva, E.V., Sidorova, M.V., & Evstigneeva, R.P. (1998) Peculiarities of synthesis of the cysteine-containing peptides. Uspekhi Khimii, 67, 611-630. #11873

682. Kundu, B., Bauser, M., Betschinger, J., Kraas, W., & Jung, G. (1998) Identification of a potent analogue of nazumamide a through iteration of combinatorial tetrapeptide libraries. Bioorg. Med. Chem. Lett., 8, 1669-1672. #11183

683. Lam, K.S., Sroka, T., Chen, M.L., Zhao, Y., Lou, Q., Wu, J.Z., & Zhao, Z.G. (1998) Application of one-bead one-compound combinatorial library methods in signal transduction research. Life Sci., 62, 1577-1583. #11160

684. Lam, K.S. (1998) Determination of peptide substrate motifs for protein kinases using a "one-bead one-compound" combinatorial library approach. Methods Mol. Biol., 87, 83-86. #11535

685. Lam, K.S., & Lebl, M. (1998) Synthesis of a one-bead one-compound combinatorial peptide library. Methods Mol. Biol., 87, 1-6. #11470

686. Lang, I., Donze, N., Garrouste, P., Dumy, P., & Mutter, M. (1998) Chemoselectively addressable HCan building blocks in peptide synthesis: L-homocanoline derivatives. J. Peptide Sci., 4, 72-80. #11144

687. Lange, M., Cuthbertson, A.S., Towart, R., & Fischer, P.M. (1998) Synthesis and activity of dimeric bradykinin antagonists containing diaminodicarboxylic acid bridge residues. J. Peptide Sci., 4, 289-293. #11309

688. Larsen, B.D., & Holm, A. (1998) Sequence-assisted peptide synthesis (SAPS). J. Pept. Res., 52, 470-476. #12394

689. Larsen, B.D. & Holm, A. (1998) Sequence assisted peptide synthesis (SAPP). In R. Ramage & R. Epton (Eds.), Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium. (pp. 567-568). Mayflower Scientific Ltd., Kingswinford. #11559

690. Lebl, M. (1998) Solid-phase synthesis on planar supports. Biopolymers (Pept. Sci.), 47, 397-404. #12265

691. Leger, R., Yen, R., She, M.W., Lee, V.J., & Hecker, S.J. (1998) N-Linked solid phase peptide synthesis. Tetrahedron Lett., 39, 4171-4174. #10853

692. Lehmann, J., Linden, A., & Heimgartner, H. (1998) Synthesis of the endothiopeptide Boc-Trp-Ile-Ala-Aib-Ile-Val-psi[CSNH]Aib-

Leu-Aib-Pro-OMe by a variation of the 'azirine/oxazolone method'. *Tetrahedron*, 54, 8721-8736. #11311

693. Lelievre, D., Chabane, H., & Delmas, A. (1998) Simple and efficient solid-phase synthesis of unprotected peptide aldehyde for peptide segment ligation. *Tetrahedron Lett.*, 39, 9675-9678. #12055

694. Lescrinier, T., Hendrix, C., Kerremans, L., Rozenski, J., Link, A., Samyn, P., Vanaerschot, A., Lescrinier, E., Eritja, R., Vanbeeumen, J., & Herdewijn, P. (1998) DNA-binding ligands from peptide libraries containing unnatural amino acids. *Chem. Eur. J.*, 4, 425-433. #11019

695. Li, X., Kawakami, T., & Aimoto, S. (1998) Direct preparation of peptide thioesters using an Fmoc solid-phase method. *Tetrahedron Lett.*, 39, 8669-8672. #11961

696. Limal, D., Quesnel, A., & Briand, J.P. (1998) Direct synthesis of N-protected beta-amino dimethylhydroxamates: Application to the solid-phase synthesis of a peptide incorporating a new amide bond surrogate psi[CH2CH2NH]. *Tetrahedron Lett.*, 39, 4239-4242. #10857

697. Limal, D., Briand, J.P., Dalbon, P., & Jolivet, M. (1998) Solid-phase synthesis and on-resin cyclization of a disulfide bond peptide and lactam analogues corresponding to the major antigenic site of HIV gp41 protein. *J. Pept. Res.*, 52, 121-129. #11313

698. Lin, P., & Ganesan, A. (1998) Solid-phase synthesis of peptidomimetic oligomers with a phosphodiester backbone. *Bioorg. Med. Chem. Lett.*, 8, 511-514. #10693

699. Link, A., Lescrinier, T., Kerremans, L., Rozenski, J., & Herdewijn, P. (1998) Side reactions in solid phase peptide synthesis caused by sulfonyl-ornithine building blocks. *Pharmazie*, 53, 200-201. #11161

700. Lohse, P.A., & Felber, R. (1998) Incorporation of a phosphonic acid isostere of aspartic acid into peptides using Fmoc-solid phase synthesis. *Tetrahedron Lett.*, 39, 2067-2070. #10599

701. Loughnan, M., Bond, T., Atkins, A., Cuevas, J., Adams, D.J., Broxton, N.M., Livett, B.G., Down, J.G., Jones, A., Alewood, P.F., & Lewis, R.J. (1998) Alpha-conotoxin Epl, a novel sulfated peptide from conus episcopatus that selectively targets neuronal nicotinic acetylcholine receptors. *Journal of Biological Chemistry*, 273, 15667-15674. #11069

702. Lowik, D.W.P.M., Weingarten, M.D., Broekema, M., Brouwer, A.J., Still, W.C., & Liskamp, R.M.J. (1998) Tweezers with different bite: Increasing the affinity of synthetic receptors by varying the hinge part. *Angew. Chem. Int. Ed.*, 37, 1846-1850. #11316

703. Lozano, J.M., Espejo, F., Diaz, D., Salazar, L.M., Rodriguez, J., Pinzon, C., Calvo, J.C., Guzman, F., & Patarroyo, M.E. (1998) Reduced amide pseudopeptide analogues of a malaria peptide possess secondary structural elements responsible for induction of functional antibodies which react with native proteins expressed in *Plasmodium falciparum* erythrocyte stages. *J. Pept. Res.*, 52, 457-469. #12400

704. Lu, W.Y., Starovasnik, M.A., & Kent, S.B.H. (1998) Total chemical synthesis of bovine pancreatic trypsin inhibitor by native chemical ligation. *FEBS Lett.*, 429, 31-35. #11071

705. Lumma, W.C.Jr., Witherup, K.M., Tucker, T.J., Brady, S.F., Sisko, J.T., Naylor-Olsen, A.M., Lewis, S.D., Lucas, B.J., & Vacca, J.P. (1998) Design of novel, potent, noncovalent inhibitors of thrombin with nonbasic P-1 substructures: Rapid structure-activity studies by solid-phase synthesis. *J. Med. Chem.*, 41, 1011-1013. #10591

706. Lutsiak, C.M.E., Sosnowski, D.L., Wishart, D.S., Kwon, G.S., & Samuel, J. (1998) Use of a liposome antigen delivery system to alter immune responses in vivo. *J. Pharm. Sci.*, 87, 1428-1432. #12401

707. Maeda, M., Kawasaki, K., Mu, Y., Kamada, H., Tsutsumi, Y., Smith, T.J., & Mayumi, T. (1998) Amino acids and peptides. XXXIII. A bifunctional poly(ethylene glycol) hybrid of laminin-related peptides. *Biochem. Biophys. Res. Commun.*, 248, 485-489. #11317

708. Maeda, M., Izuno, Y., Kawasaki, K., Kaneda, Y., Mu, Y., Tsutsumi, Y., Nakagawa, S., & Mayumi, T. (1998) Amino acids and peptides. XXXI. Preparation of analogs of the laminin-related peptide YIGSR and their inhibitory effect on experimental metastasis. *Chem. Pharm. Bull. Tokyo*, 46, 347-350. #10706

709. Magerlein, M., Hock, D., Adermann, K., Neidlein, R., Forssmann, W.G., & Strein, K. (1998) Production of sequence specific polyclonal antibodies to human parathyroid hormone 1-37 by immunization with multiple antigenic peptides. *Arzneim. -Forsch.*,

48, 783-787. #11007

710. Mah , E., Vossen, P., Van den Hooven, H.W., Le-Nguyen, D., Vervoort, J., & De Wit, P.J.G.M. (1998) Solid-phase synthesis, conformational analysis, and biological activity of AVR9 elicitor peptides of the fungal tomato pathogen *Cladosporium fulvum*. *J. Pept. Res.*, 52, 482-494. #12173

711. Marcaurelle, L.A., & Bertozzi, C.R. (1998) Direct incorporation of unprotected ketone groups into peptides during solid-phase synthesis: Application to the one-step modification of peptides with two different biophysical probes for FRET. *Tetrahedron Lett.*, 39, 7279-7282. #11570

712. Martin, L., Cornille, F., Coric, P., Roques, B.P., & Fournie-Zaluski, M.C. (1998) Beta-amino-thiols inhibit the zinc metallopeptidase activity of tetanus toxin light chain. *J. Med. Chem.*, 41, 3450-3460. #11879

713. Martin, S.F., Dwyer, M.P., & Lynch, C.L. (1998) Application of AlMe3-mediated amidation reactions to solution phase peptide synthesis. *Tetrahedron Lett.*, 39, 1517-1520. #10520

714. Mathe, C., Perigaud, C., Gosselin, G., & Imbach, J.L. (1998) Phosphopeptide prodrug bearing an S-acyl-2-thioethyl enzyme-labile phosphate protection. *J. Org. Chem.*, 63, 8547-8550. #12406

715. Matsuura, K., Ikoma, S., Sugiyama, M., Funauchi, M., & Sinohara, H. (1998) Amidolytic and peptidolytic activities of immunoglobulin G present in sera from patients with rheumatoid arthritis, Sjogren's-syndrome and systemic lupus erythematosus. *Immunology*, 95, 26-30. #11880

716. Matysiak, S., Boldicke, T., Tegge, W., & Frank, R. (1998) Evaluation of monomethoxytrityl and dimethoxytrityl as orthogonal amino protecting groups in Fmoc solid phase peptide synthesis. *Tetrahedron Lett.*, 39, 1733-1734. #10607

717. Maurer, M.C., Peng, J.L., An, S.S., Trosset, J.Y., Henschen-Edman, A., & Scheraga, H.A. (1998) Structural examination of the influence of phosphorylation on the binding of fibrinopeptide a to bovine thrombin. *Biochemistry*, 37, 5888-5902. #11106

718. Mayer, J.P., Zhang, J., Groeger, S., Liu, C.F., & Jarosinski, M.A. (1998) Lanthionide macrocyclization by in situ activation of serine. *J. Pept. Res.*, 51, 432-436. #10813

719. Mayerfligge, P., Volz, J., Kruger, U., Sturm, E., Gernhardt, W., Schafer, K.P., & Przybylski, M. (1998) Synthesis and structural characterization of human-identical lung surfactant SP-C protein. *J. Peptide Sci.*, 4, 355-363. #11322

720. Meisenbach, M., Echner, H. & Voelter, W. (1998) New 9-substituted xanthenylamine linkers for the solid phase synthesis of protected peptide amides. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 633-634). Mayflower Scientific Ltd., Kingswinford. #11516

721. Meldal, M., Renil, M., Juliano, M.A., Jansson, A.M., Meinjohanns, E., Buchardt, J. & Schleyer, A. (1998) Novel PEG-based resins and synthetic methods: Azido acids in SPPS and direct solid phase peptide glycosylations. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 141-152). Mayflower Scientific Ltd., Kingswinford. #11496

722. Mellor, S.L., Rose, F., McGuire, C., Spencer, A.E., Smith, E.E. & Chan, W.C. (1998) Synthesis and evaluation of atypical antibacterial hexapeptides: Application of facile solid phase strategies. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 635-636). Mayflower Scientific Ltd., Kingswinford. #11517

723. Melnyk, O., Bossus, M., David, D., Rommens, C., & Gras-Masse, H. (1998) Synthesis of lipopeptides using hydrazone chemical ligation. *J. Pept. Res.*, 52, 180-184. #11882

724. Melnyk, O., Chaurand, P., Rommens, C., Drobecq, H., Wieruszewski, J.M., Spengler, B., & Gras-Masse, H. (1998) Identification of a sequence-dependent reversible acylation of tosylarginine in a peptidyl-resin reacted with isonicotinyl p-nitrophenylcarbonate. *J. Pept. Res.*, 51, 188-193. #12257

725. Melnyk, O., Klinguer, C., Loing, E., Boutillon, C. & Gras-Masse, H. (1998) A versatile method for peptide modifications through hydrazone chemical ligation. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 637-638). Mayflower Scientific Ltd., Kingswinford. #11518

726. Mezo, G., Mihala, N., Koczan, G., & Hudecz, F. (1998) Cyclohexyloxycarbonyl based orthogonal solid phase peptide synthesis in Boc chemistry. *Tetrahedron*, 54, 6757-6766. #10959

727. Miller, S.C., & Scanlan, T.S. (1998) oNBS-SPPS: A new method for solid-phase peptide synthesis. *J. Amer. Chem. Soc.*, 120, 2690-2691. #11033

728. Millington, C.R., Quarrell, R., & Lowe, G. (1998) Aryl hydrazides as linkers for solid phase synthesis which are cleavable under mild oxidative conditions. *Tetrahedron Lett.*, 39, 7201-7204. #11223

729. Miranda, L.P., Jones, A., Meutermans, W.D.F., & Alewood, P.F. (1998) p-Cresol as a reversible acylium ion scavenger in solid-phase peptide synthesis. *J. Amer. Chem. Soc.*, 120, 1410-1420. #10659

730. Miyashita, M., Nakamori, T., Murai, T., Miyagawa, H., Akamatsu, M., & Ueno, T. (1998) Facile syntheses of AM-toxins and analogs as cyclic depsipeptides by the solid-phase method. *Biosci. Biotechnol. Biochem.*, 62, 1799-1801. #11883

731. Mizuno, M., Muramoto, I., Kawakami, T., Seike, M., Aimoto, S., Haneda, K., & Inazu, T. (1998) A synthesis of a glycopeptide analogue of eel calcitonin. *Tetrahedron Lett.*, 39, 55-58. #9880

732. Moyesherman, D., Jin, S., Ham, I., Lim, D.Y., Scholtz, J.M., & Burgess, K. (1998) Conformational preferences of RNase a C-peptide derivatives containing a highly constrained analogue of phenylalanine. *J. Amer. Chem. Soc.*, 120, 9435-9443. #11884

733. Nakahara, Y., Ito, Y., & Ogawa, T. (1998) Solid-phase synthesis of the B-chain of human alpha-2HS glycoprotein. *Carbohydr. Res.*, 309, 287-296. #11328

734. Nefzi, A., Dooley, C., Ostresh, J.M., & Houghten, R.A. (1998) Combinatorial chemistry: From peptides and peptidomimetics to small organic and heterocyclic compounds. *Bioorg. Med. Chem. Lett.*, 8, 2273-2278. #11193

735. Noda, M. (1998) Facile synthesis of 3-methoxy-10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-one: Application to the acid-labile peptide amide linker containing the 10,11-dihydro-5H-dibenzo[a,d]cycloheptene moiety. *Chem. Pharm. Bull. Tokyo*, 46, 1157-1159. #11330

736. Nunami, K., Yamada, M., & Shimizu, R. (1998) Design of novel tripeptides with macrophage migration-enhancing activity. *Bioorg. Med. Chem. Lett.*, 8, 2517-2520. #11888

737. Ojima, I., Wang, H., Wang, T., & Ng, E.W. (1998) New approaches to the asymmetric synthesis of dipeptide isosteres via beta-Lactam Synthon Method. *Tetrahedron Lett.*, 39, 923-926. #10486

738. Orosz, G., & Kiss, L.P. (1998) Simple and efficient synthesis of 2-chlorotriylchloride resin. *Tetrahedron Lett.*, 39, 3241-3242. #10800

739. Ostresh, J.M., Dorner, B., & Houghten, R.A. (1998) Perykylation. "Libraries from libraries": Chemical transformation of synthetic combinatorial libraries. *Methods Mol. Biol.*, 87, 41-49. #10563

740. Ota, M., Shimizu, Y., Tonosaki, K., & Ariyoshi, Y. (1998) Synthesis, characterization, and sweetness: Suppressing activities of gurmarin analogues missing one disulfide bond. *Biopolymers*, 46, 65-73. #11068

741. Palkeeva, M.E., Sidorova, M.V., Molokoedov, A.S., Kuznetsova, T.V., Tishchenko, V.A., Kobylyanskii, A.G., Bespalova, Z.D., Nasonov, E.L., & Evstigneeva, R.P. (1998) The synthesis and biological properties of artificial antigens on the basis of the 280-289 fragment of beta(2)-Glycoprotein I. *Bioorganicheskaiia Khimiia*, 24, 502-508. #11891

742. Panke, G., & Frank, R. (1998) Improved preparation of safety-catch linker for the solid phase synthesis of peptide acids finally released into aqueous buffers. *Tetrahedron Lett.*, 39, 17-18. #9879

743. Paris, M., Heitz, A., Guerlavais, V., Cristau, M., Fehrentz, J.A., & Martinez, J. (1998) Synthesis of peptide aldehydes on solid support using ozonolysis. *Tetrahedron Lett.*, 39, 7287-7290. #11571

744. Paris, M., Pothion, C., Heitz, A., Martinez, J., & Fehrentz, J.A. (1998) Synthesis of N- and side chain protected aspartyl and glutamyl aldehyde derivatives. Reinvestigation of the reduction of Weinreb amides. *Tetrahedron Lett.*, 39, 1341-1344. #10513

745. Pascal, R., & Sola, R. (1998) Preservation of the Fmoc protective group under alkaline conditions by using CaCl₂. Applications in peptide synthesis. *Tetrahedron Lett.*, 39, 5031-5034. #10921

746. Patek, M., Bildstein, S., & Flegelova, Z. (1998) Monitoring solid phase reactions with ion-selective electrode. *Tetrahedron Lett.*,

39, 753-756. #10049

747. Perez, J.A., Canto, J., Reig, F., Perez, J.J., & Haro, I. (1998) Conformational behavior of the HAV-VP3(110-121) peptidic sequence and synthetic analogs in membrane environments studied by CD and computational methods. *Biopolymers*, 45, 479-492. #11141

748. Peukert, S., & Giese, B. (1998) The pivaloylglycol anchor group: A new platform for a photolabile linker in solid-phase synthesis. *J. Org. Chem.*, 63, 9045-9051. #12182

749. Peyrottes, S., Mestre, B., Burlina, F., & Gait, M.J. (1998) The synthesis of peptide-oligonucleotide conjugates by a fragment coupling approach. *Tetrahedron*, 54, 12513-12522. #11896

750. Pfeifer, M.E., & Robinson, J.A. (1998) Stabilisation of beta-hairpin conformations in a protein surface mimetic using a bicyclic template derived from (2S,3R,4R)-diaminoproline. *Chem. Commun.*, 1977-1978. #11897

751. Phoon, C.W., Oliver, S.F., & Abell, C. (1998) The use of trichloroacetimidate-activated resin for ester formation. *Tetrahedron Lett.*, 39, 7959-7962. #11806

752. Pietrzynski, G., Slon-Usakiewicz, J.J. & Konishi, Y. (1998) Peptide synthesis database. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 723-724). Mayflower Scientific Ltd., Kingswinford. #11521

753. Polaskova, M.E., Ede, N.J., & Lambert, J.N. (1998) Synthesis of nanotubule-forming cyclic octapeptides via an Fmoc strategy. *Aust. J. Chem.*, 51, 535-540. #11335

754. Polverino de Laureto, P., Scaramella, E., De Filippis, V., Marin, O., Doni, M.G., & Fontana, A. (1998) Chemical synthesis and structural characterization of the RGD-protein decorsin: A potent inhibitor of platelet aggregation. *Protein Sci.*, 7, 433-444. #10718

755. Quesnel, A., & Briand, J.P. (1998) Incomplete trifluoroacetic acid deprotection of asparagine-trityl-protecting group in the vicinity of a reduced peptide bond. *J. Pept. Res.*, 52, 107-111. #11339

756. Quetard, C., Bourgerie, S., Normandsdiqui, N., Mayer, R., Strecker, G., Midoux, P., Roche, A.C., & Monsigny, M. (1998) Novel glycosynthons for glycoconjugate preparation: Oligosaccharylpyroglutamylanilide derivatives. *Bioconjug. Chem.*, 9, 268-276. #11167

757. Rabenstein, D.L., Russell, J., & Gu, J. (1998) Characterization of the thiol/disulfide chemistry of peptides corresponding to the 603-609 disulfide loop of the human immunodeficiency virus (HIV) envelope glycoprotein gp41. *J. Pept. Res.*, 51, 437-443. #10814

758. Rademaker, G.J., Pergantis, S.A., Bloktip, L., Langridge, J.I., Kleen, A., & Thomasoates, J.E. (1998) Mass spectrometric determination of the sites of O-glycan attachment with low picomolar sensitivity. *Anal. Biochem.*, 257, 149-160. #11169

759. Ramage, R., & Epton, R. (1998) *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. Mayflower Scientific Ltd., Kingswinford. ISBN 095270112X #11474

760. Ramage, R., Swenson, H.R., & Shaw, K.T. (1998) A novel purification protocol for soluble combinatorial peptide libraries. *Tetrahedron Lett.*, 39, 8715-9718. #11964

761. Raman, P., Stokes, S.S., Angell, Y.M., Flentke, G.R., & Rich, D.H. (1998) Methods to circumvent a difficult coupling in the solid-phase synthesis of cyclosporine analogues. *J. Org. Chem.*, 63, 5734-5735. #11902

762. Rau, H.K., & Haehnel, W. (1998) Design, synthesis, and properties of a novel cytochrome B model. *J. Amer. Chem. Soc.*, 120, 468-476. #10687

763. Reichwein, J.F., & Liskamp, R.M.J. (1998) Site-specific N-alkylation of peptides on the solid phase. *Tetrahedron Lett.*, 39, 1243-1246. #10506

764. Reis, C.A., Sorensen, T., Mandel, U., David, L., Mirgorodskaya, E., Roepstorff, P., Kihlberg, J., Hansen, J.E.S., & Clausen, H. (1998) Development and characterization of an antibody directed to an alpha-N-acetyl-D-galactosamine glycosylated MUC2 peptide. *Glycoconjugate J.*, 15, 51-62. #10717

765. Rene, L., Yaouancq, L., & Badet, B. (1998) Orthogonally protected imidazolidine-2-carboxylic acid, a new proline surrogate suitable for SPPS. *Tetrahedron Lett.*, 39, 2569-2570. #10618

766. Renil, M., Ferreras, M., Delaisse, J.M., Foged, N.T., & Meldal, M. (1998) PEGA supports for combinatorial peptide synthesis and solid-phase enzymatic library assays. *J. Peptide Sci.*, 4, 195-210. #10862

767. Renil, M., Meldal, M., Delaisse, J.M. & Foged, N.T. (1998) Fluorescent quenched peptide libraries as a tool for identification of enzyme substrates for matrix metalloproteinase (MMP)-9 from osteoclasts. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 753-754). Mayflower Scientific Ltd., Kingswinford. #11523

768. Revesz, L., Bonne, F., Manning, U., & Zuber, J.F. (1998) Solid phase synthesis of a biased mini tetrapeptoid-library for the discovery of monodentate itam mimics as ZAP-70 inhibitors. *Bioorg. Med. Chem. Lett.*, 8, 405-408. #10691

769. Ridge, S., & Hettiarachchi, K. (1998) Peptide purity and counter ion determination of bradykinin by high performance liquid chromatography and capillary electrophoresis. *J. Chromatogr.*, 817, 215-222. #11903

770. Rivier, J., Lahrichi, S.L., Gulyas, J., Erchegyi, J., Koerber, S.C., Craig, A.G., Corrigan, A., Rivier, C., & Vale, W. (1998) Minimal-size, constrained corticotropin-releasing factor agonists with i-(i+3) Glu-Lys and Lys-Gln bridges. *J. Med. Chem.*, 41, 2614-2620. #11342

771. Rivier, J., Gulyas, J., Corrigan, A., Martinez, V., Craig, A.G., Tache, Y., Vale, W., & Rivier, C. (1998) Astressin analogues (corticotropin-releasing factor antagonists) with extended duration of action in the rat. *J. Med. Chem.*, 41, 5012-5019. #12424

772. Roberge, J.Y., Beebe, X., & Danishefsky, S.J. (1998) Convergent synthesis of N-linked glycopeptides on a solid support. *J. Amer. Chem. Soc.*, 120, 3915-3927. #10988

773. Roberts, K.D., Lambert, J.N., Ede, N.J., & Bray, A.M. (1998) Efficient synthesis of thioether-based cyclic peptide libraries. *Tetrahedron Lett.*, 39, 8357-8360. #12017

774. Rodriguez, J.G., Martinvillamil, R., & Ramos, S. (1998) Solid phase synthesis of anhydrides and amides: Polymer-assisted reaction in the synthesis of dipeptides. *New J. Chem.*, 22, 865-868. #11906

775. Rohwedder, B., Mutti, Y., Dumy, P., & Mutter, M. (1998) Hydrazinolysis of Dde:Complete orthogonality with Aloc protecting groups. *Tetrahedron Lett.*, 39, 1175-1178. #10505

776. Romanovskis, P., & Spatola, A.F. (1998) Preparation of head-to-tail cyclic peptides via side-chain attachment: Implications for library synthesis. *J. Pept. Res.*, 52, 356-374. #12184

777. Root-Bernstein, R.S., & Holsworth, D.D. (1998) Antisense peptides: A critical mini-review [review]. *J. Theor. Biol.*, 190, 107-119. #10705

778. Royo, M., Contreras, M.A., Giralt, E., Albericio, F., & Pons, M. (1998) An easy entry to a new high-symmetry, large molecular framework for molecular recognition studies and de novo protein design: Solvent modulation of the spontaneous formation of a cyclic monomer, dimer, or trimer from a bis-cysteine peptide. *J. Amer. Chem. Soc.*, 120, 6639-6650. #11343

779. Saha, S., Waugh, D.J.J., Zhao, P., Abel, P.W., & Smith, D.D. (1998) Role of conformational constrains of position 7 of the disulphide bridge of h-a-CGRP derivatives in their agonist versus antagonist properties. *J. Pept. Res.*, 52, 112-120. #11693

780. Satyanarayana, J., Gururaja, T.L., Naganagowda, G.A., Ramasubbu, N., & Levine, M.J. (1998) A concise methodology for the stereoselective synthesis of O-glycosylated amino acid building blocks: Complete H-1 NMR assignments and their application in solid-phase glycopeptide synthesis. *J. Pept. Res.*, 52, 165-179. #11912

781. Sauter, G., & Leumann, C. (1998) Distamycin-NA: A DNA analog with an aromatic heterocyclic polyamide backbone. Part 2. Solid-phase synthesis of distamycin-NAs containing the nucleobase uracil: Unexpected solvent participation in the coupling step. *Helv. Chim. Acta*, 81, 916-931. #10972

782. Scheibler, L., Dumy, P., Stamou, D., Duschl, C., Vogel, H., & Mutter, M. (1998) Self-assembling functionalized templates in biosensor technology. *Polym. Bull.*, 40, 151-157. #10653

783. Schmidt, B., & Kuhn, C. (1998) Racemic, yet diastereomerically pure azido acids as both gamma-turn and inverse gamma-turn

mimetics for solid-phase peptide synthesis. *Synlett*, 1240. #12434

784. Sebestyen, F., Szendrei, G., Mak, M., Doda, M., Illyes, E., Szokan, G., Kindla, K., Rapp, W., Szego, P., Campian, E., & Furka, A. (1998) Coloured peptides: Synthesis, properties and use in preparation of peptide sub-library kits. *J. Peptide Sci.*, 4, 294-299. #10880

785. Seebach, D., Abele, S., Sifferlen, T., Hanggi, M., Gruner, S., & Seiler, P. (1998) Preparation and structure of beta-peptides consisting of geminally disubstituted beta(2,2)- and beta(3,3)-amino acids: A turn motif for beta-peptides. *Helv. Chim. Acta*, 81, 2218-2243. #12436

786. Seligmann, B., Lebl, M. & Lam, K.S. (1998) Solid-phase peptide synthesis, lead generation, and optimization. In E.M. Gordon & J.F.J. Kerwin (Eds.), *Combinatorial Chemistry and Molecular Diversity in Drug Discovery*. (pp. 39-109). John Wiley & Sons, New York. #11709

787. Servent, D., Mourier, G., Antil, S., & Menez, A. (1998) How do snake curaremimetic toxins discriminate between nicotinic acetylcholine receptor subtypes. *Toxicology Letters*, 103, 199-203. #12811

788. Sheibani, N., & Frazier, W.A. (1998) Direct use of synthetic peptides for antiserum production. *BioTechniques*, 25, 28-32. #10871

789. Shogren-Knaak, M.A., & Imperiali, B. (1998) A reversible affinity tag for the purification of N-glycol capped peptides. *Tetrahedron Lett.*, 39, 8241-8244. #12012

790. Sim, M.M., Lee, C.L., & Ganesan, A. (1998) Solid-phase C-acylation of active methylene compounds. *Tetrahedron Lett.*, 39, 2195-2198. #10602

791. Sintihaki, E., Minakaki, P., Tzougraki, C., Loukas, S., & Stassinopoulou, C.I. (1998) Solid-phase synthesis and structural studies of the N-terminal 25 peptides of ribosomal S2 proteins from *Th.thermophilus* and *E.coli*. *J. Protein Chem.*, 17, 551-551. #11350

792. Sivanandaiah, K.M., Babu, V.V.S., & Shankaramma, S.C. (1998) Solid phase synthesis of O-glycoopioid peptides related to dermorphin. *Ind. J. Chem. B-Org. Chem. Med. Chem.*, 37, 760-767. #12444

793. Spetzler, J.C., Westphal, V., Winther, J.B., & Meldal, M. (1998) Preparation of fluorescence quenched libraries containing interchain disulphide bonds for studies of protein disulphide isomerases. *J. Peptide Sci.*, 4, 128-137. #10628

794. St.Hilaire, P.M., Lowary, T., Meldal, M. & Bock, K. (1998) Synthesis and analysis of glycopeptide libraries and their application in solid phase assays of carbohydrate binding-proteins. In R. Ramage & R. Epton (Eds.), *Peptides 1996: Proceedings of the Twenty-Fourth European Peptide Symposium*. (pp. 817-818). Mayflower Scientific Ltd., Kingswinford. #11525

795. Suarez, E., De, E., Molle, G., Lazaro, R., & Viallefont, P. (1998) Synthesis and characterization of a new biotinylated gramicidin. *J. Peptide Sci.*, 4, 371-377. #11560

796. Svensson, A., Bergquist, K.E., Fex, T., & Kihlberg, J. (1998) Fluorinated linkers for monitoring solid-phase synthesis using gel-phase ¹⁹F NMR spectroscopy. *Tetrahedron Lett.*, 39, 7193-7196. #11222

797. Sweeney, S.M., Guy, C.A., Fields, G.B., & San Antonio, J.D. (1998) Defining the domains of type I collagen involved in heparin-binding and endothelial tube formation. *Proc. Natl. Acad. Sci. USA*, 95, 7275-7280. #11057

798. Szabo, L., Smith, B.L., McReynolds, K.D., Parrill, A.L., Morris, E.R., & Gervay, J. (1998) Solid phase synthesis and secondary structural studies of (1->5) amide-linked sialooligomers. *J. Org. Chem.*, 63, 1074-1078. #10661

799. Tam, J.P., & Lu, Y.A. (1998) A biomimetic strategy in the synthesis and fragmentation of cyclic protein. *Protein Sci.*, 7, 1583-1592. #11358

800. Tamamura, H., Arakaki, R., Funakoshi, H., Imai, M., Otaka, A., Ibuka, T., Nakashima, H., Murakami, T., Waki, M., Matsumoto, A., Yamamoto, N., & Fujii, N. (1998) Effective lowly cytotoxic analogs of an HIV-cell fusion inhibitor, T22 ([Tyr(5,12),Lys(7)]-polyphemusin II). *Bioorg. Med. Chem.*, 6, 231-238. #11154

801. Taylor, C.M. (1998) Glycopeptides and glycoproteins: Focus on the glycosidic linkage. *Tetrahedron*, 54, 11317-11362. #11920

802. Tedebar, U., Meldal, M., Panza, L., & Bock, K. (1998) C-Linked glycosyl azido acid in novel solid-phase C-glycopeptide

synthesis. *Tetrahedron Lett.*, 39, 1815-1818. #10609

803. Tetzlaff, C.N., Schwope, I., Bleczinski, C.F., Steinberg, J.A., & Richert, C. (1998) A convenient synthesis of 5'-amino-5'-deoxythymidine and preparation of peptide-DNA hybrids. *Tetrahedron Lett.*, 39, 4215-4218. #10856

804. Toniolo, C., Crisma, M., & Formaggio, F. (1998) TOAC, a nitroxide spin-labeled, achiral C(alpha)-tetrasubstituted alpha-amino acid, is an excellent tool in material science and biochemistry. *Biopolymers (Pept. Sci.)*, 47, 153-158. #10666

805. Toth, K., Kovacs, M., Zarandi, M., Halmos, G., Groot, K., Nagy, A., Kele, Z., & Schally, A.V. (1998) New analogs of human growth hormone-releasing hormone (1-29) with high and prolonged antagonistic activity. *Int. J. Peptide Prot. Res.*, 51, 134-141. #10733

806. Tu, J., Yu, Z., & Chu, Y.H. (1998) Combinatorial search for diagnostic agents: Lyme antibody H9724 as an example. *Clin. Chem.*, 44, 232-238. #10579

807. Tuchscherer, G., Lehmann, C., & Mathieu, M. (1998) New protein mimetics: The zinc finger motif as a locked-in tertiary fold. *Angew. Chem.*, 2990-2993. #12457

808. Ueki, M., Goto, R., Okumura, J., & Ishii, K. (1998) N,N'-Dialkyldiamide-type phosphate protecting groups for Fmoc synthesis of phosphotyrosine-containing peptides: Optimization of the alkyl group. *Bull. Chem. Soc. Jpn.*, 71, 1887-1898. #11922

809. Varkey, J.T., & Pillai, V.N. (1998) Synthesis of thioredoxin partial sequences on 1,6-hexanediol diacrylate (HDODA)-cross-linked polystyrene resin. *Int. J. Peptide Prot. Res.*, 51, 49-54. #10397

810. Vilaseca, M., Nicolas, E., Capdevila, F., & Giralt, E. (1998) Reduction of methionine sulfoxide with NH4I/TFA: Compatibility with peptides containing cysteine and aromatic amino acids. *Tetrahedron*, 54, 15273-15286. #12198

811. Virgilio, A.A. & Ellman, J.A. (1998) Conformationally restricted peptide and peptidomimetic libraries. In E.M. Gordon & J.F.J. Kerwin (Eds.), *Combinatorial Chemistry and Molecular Diversity in Drug Discovery*. (pp. 133-149). John Wiley & Sons, New York. #3765

812. Vyle, J.S., Williams, N.H., & Grasby, J.A. (1998) A novel solid support for synthesis of 2',3'-cyclic phosphate terminated oligonucleotides. *Tetrahedron Lett.*, 39, 7975-7978. #11807

813. Wang, P., Layfield, R., Landon, M., Mayer, R.J., & Ramage, R. (1998) Transfer active ester condensation: A novel technique for peptide segment coupling. *Tetrahedron Lett.*, 39, 8711-8714. #11963

814. Wang, P., Shaw, K.T., Whigham, B., & Ramage, R. (1998) Synthesis of peptide C-terminal derivatives using the transfer active ester condensation technique. *Tetrahedron Lett.*, 39, 8719-8720. #11965

815. Wang, R., Hu, X.Y., Ma, Y.P., & Li, D. (1998) Studies on the solution conformation of angiotensin II [Chinese]. *Chem. J. Chin. Univ.*, 19, 1758-1762. #12463

816. Wang, X., Liang, S., & Luo, Z. (1998) Chemical synthesis and physiological activity analysis of K3A-HWTX-I: A mutant of huwentoxin-I. *Shengming Kexue Yanjiu*, 2, 87-92. #11467

817. Welch, C.J., Bhat, G., & Protopopova, M.N. (1998) Silica-based solid phase synthesis of chiral stationary phases. *Enantiomer*, 3, 463-469. #12466

818. Wen, J.J., & Crews, C.M. (1998) Towards the semi-synthesis of didemnin M. Solution and solid phase syntheses of the pseudotetrapeptide:pGlu-Gln-psi-[COO]Ala-Pro-OH. *Tetrahedron Lett.*, 39, 779-782. #10051

819. Wen, J.J., & Crews, C.M. (1998) Synthesis of 9-fluorenylmethoxycarbonyl-protected amino aldehydes. *Tetrahedron-Asymmetry*, 9, 1855-1858. #10906

820. Wilken, J., & Kent, S. (1998) Chemical protein synthesis. *Curr. Opin. Biotechnol.*, 9, 412-426. #12915

821. Williams, L., Kather, K., & Kemp, D.S. (1998) High helicities of Lys-containing, Ala-rich peptides are primarily attributable to a large, context-dependent Lys stabilization. *J. Amer. Chem. Soc.*, 120, 11033-11043. #12468

822. Wirkus-Romanowska, I., Ciurak, M., Miecznikowska, H., Rolka, K., Janusz, M., Szymaniec, S., Krukowska, K., Lisowski, J., & Kupryszewski, G. (1998) Cyclic analogues of proline-rich protein fragments. Part I. Synthesis and evaluation of immunotropic activity. *Polish J. Chem.*, 72, 2394-2398. #12470

823. Witte, K., Seitz, O., & Wong, C.H. (1998) Solution- and solid-phase synthesis of N-protected glycopeptide esters of the benzyl type as substrates for subtilisin-catalyzed glycopeptide couplings. *J. Amer. Chem. Soc.*, 120, 1979-1989. #11052

824. Wojciechowska, I., Kochanska, B., Stelmanska, E., Knap, N., Mackiewicz, Z., & Kupryszewski, G. (1998) Statherin and its shortened analogues. *Polish J. Chem.*, 72, 2098-2102. #11931

825. Wu, J.J., Phan, H., & Lam, K.S. (1998) Comparison of the intrinsic kinase activity and substrate specificity of c-Abl and Bcr-Abl. *Bioorg. Med. Chem. Lett.*, 8, 2279-2284. #11194

826. Yamada, M., Miyajima, T., & Horikawa, H. (1998) Solid-phase synthesis of dehydroalanine derivatives. *Tetrahedron Lett.*, 39, 289-292. #9874

827. Yao, S., Ghosh, I., Zutshi, R., & Chmielewski, J. (1998) A self-replicating peptide under ionic control. *Angew. Chem. Int. Ed.*, 37, 478-481. #10652

828. Yao, Z.J., Ye, B., Miyoshi, K., Otaka, A., & Burke, T.R. (1998) Preparation of phospho-L-azatyrosine suitably protected for the synthesis of signal transduction related peptides: A correction. *Synlett*, 428. #10985

829. Yokote, K., Hellman, U., Ekman, S., Saito, Y., Ronnstrand, L., Heldin, C.H., & Mori, S. (1998) Identification of Tyr-762 in the platelet-derived growth factor alpha-receptor as the binding site for Crk proteins. *Oncogene*, 16, 1229-1239. #10695

830. Yoshikawa, M., Fujisawa, T., Izumi, J., Kitao, T., & Sakamoto, S. (1998) Molecularly imprinted polymeric membranes involving tetrapeptide EQKL derivatives as chiral-recognition sites toward amino acids. *Anal. Chim. Acta*, 365, 59-67. #10925

831. Yu, L., Lai, Y., Wade, J.V., & Coutts, S.M. (1998) A simple and efficient method for the synthesis of thioether cyclic peptides. *Tetrahedron Lett.*, 39, 6633-6636. #11228

832. Yu, Y.C., Tirrell, M., & Fields, G.B. (1998) Minimal lipidation stabilizes protein-like molecular architecture. *J. Amer. Chem. Soc.*, 120, 9979-9987. #11937

833. Yu, Z., Yu, X.C., & Chu, Y.H. (1998) MALDI-MS determination of cyclic peptidomimetic sequences on single beads directed toward the generation of libraries. *Tetrahedron Lett.*, 39, 1-4. #9878

834. Zhang, A.J., Russell, D.H., Zhu, J., & Burgess, K. (1998) A method of removal of N-Boc protecting groups from substrates on TFA-sensitive resins. *Tetrahedron Lett.*, 39, 7439-7442. #11561

835. Zuberi, S., Glen, A., Hider, R.C., & Bansal, S.S. (1998) Synthesis of asymmetric cystines. *Tetrahedron Lett.*, 39, 7567-7570. #11939

836. Albericio, F., Lloyd-Williams, P., & Giralt, E. (1997) Convergent solid-phase peptide synthesis. *Methods Enzymol.*, 289, 313-336. #9931

837. Albericio, F., & Carpino, L.A. (1997) Coupling reagents and activation. *Methods Enzymol.*, 289, 104-126. #9993

838. Albericio, F., Cases, M., Alsina, J., Triolo, S.A., Carpino, L.A., & Kates, S.A. (1997) On the use of PyAOP, a phosphonium salt derived from HOAt, in solid-phase peptide synthesis. *Tetrahedron Lett.*, 38, 4853-4856. #9043

839. Alewood, P., Alewood, D., Miranda, L., Love, S., Meutermans, W., & Wilson, D. (1997) Rapid in situ neutralization protocols for Boc and Fmoc solid-phase chemistries. *Methods Enzymol.*, 289, 14-29. #9990

840. Alsina, J., Chiva, C., Ortiz, M., Rabanal, F., Giralt, E., & Albericio, F. (1997) Active carbonate resins for solid-phase synthesis through the anchoring of a hydroxyl function. Synthesis of cyclic and alcohol peptides. *Tetrahedron Lett.*, 38, 883-886. #8231

841. Ammosova, T.N., Ouporov, I.V., Rubtsova, M.Y., Ignatenko, O.V., Egorov, A.M., Kolesanova, E.F., & Archakov, A.I. (1997) Epitope mapping of horseradish peroxidase (isoenzyme C). *Biochemistry-Engl. Tr.*, 62, 440-447. #9217

842. Andrews, M.J.I., & Tabor, A.B. (1997) Synthesis of an orthogonally-protected bifunctional amino acid for conformationally constrained peptides. *Tetrahedron Lett.*, 38, 3063-3066. #8790

843. Angeletti, R.H., Bonewald, L.F., & Fields, G.B. (1997) Six-year study of peptide synthesis. *Methods Enzymol.*, 289, 697-717. #10010

844. Annis, I., Hargittai, B., & Barany, G. (1997) Disulfide bond formation in peptides. *Methods Enzymol.*, 289, 198-221. #9994

845. Arano, Y., Akizawa, H., Uezono, T., Akaji, K., Ono, M., Funakoshi, S., Koizumi, M., Yokoyama, A., Kiso, Y., & Saji, H. (1997) Conventional and high-yield synthesis of DTPA-conjugated peptides: Application of a monoreactive dtpa to DTPA-D-Phe(1)-octreotide synthesis. *Biocjug. Chem.*, 8, 442-446. #9208

846. Arnold, D., Keilholz, W., Schild, H., Dumrese, T., Stevanovic, S., & Rammensee, H.G. (1997) Substrate specificity of cathepsins D and E determined by N-terminal and C-terminal sequencing of peptide pools. *Eur. J. Biochem.*, 249, 171-179. #10103

847. Bagno, A., Bicciato, S., Dettin, M., & Di Bello, C. (1997) A novel algorithm for the coupling control in solid-phase peptide synthesis. *J. Pept. Res.*, 50, 231-237. #9634

848. Barany, G., Albericio, F., Kates, S.A., & Kempe, M. (1997) Poly(ethylene glycol)-containing supports for solid-phase synthesis of peptides and combinatorial organic libraries. *ACS Symp. Ser.*, 680, 239-264. #9612

849. Barany, G. & Kempe, M. (1997) The context of solid-phase synthesis. In A.W. Czarnik & S.H. DeWitt (Eds.), *A Practical Guide to Combinatorial Chemistry*. (pp. 51-97). American Chemical Society, Washington,DC. #11696

850. Barany, G., Albericio, F., Kates, S.A., & Kempe, M. (1997) Polyethylene glycol-containing supports for solid phase synthesis of peptides and combinatorial organic libraries. *Polym. Preprint.*, 38, 587-588. #8520

851. Barbar, E., Gross, C.M., Woodward, C., & Barany, G. (1997) Chemical synthesis and nuclear magnetic resonance characterization of partially folded proteins. *Methods Enzymol.*, 289, 587-611. #10006

852. Bay, S., Loman, R., Osinaga, E., Nakada, H., Leclerc, C., & Cantacuzene, D. (1997) Preparation of a multiple antigen glycopeptide (MAG) carrying the Tn antigen: A possible approach to a synthetic carbohydrate vaccine. *J. Pept. Res.*, 49, 620-625. #9438

853. Bechinger, B. (1997) Structure and dynamics of the M13 coat signal sequence in membranes by multidimensional high-resolution and solid-state NMR spectroscopy. *Proteins*, 27, 481-492. #9243

854. Beekman, N.J., Schaaper, W.M., Tesser, G.I., Dalsgaard, K., Kamstrup, S., Langeveld, J.P., Boshuizen, R.S., & Meloen, R.H. (1997) Synthetic peptide vaccines: Palmitoylation of peptide antigens by a thioester bond increases immunogenicity. *Int. J. Peptide Prot. Res.*, 50, 357-364. #10114

855. Behrends, H.W., Beck-Sickinger, A.G., & Folkers, G. (1997) A new approach to secondary structure evaluation: Secondary structure prediction of porcine adenylate kinase and yeast guanylate kinase by CD spectroscopy of overlapping synthetic peptide segments. *Biopolymers*, 41, 213-231. #9959

856. Beltran, M., Maseda, M., Perez, Y., Robles, J., Pedroso, E., & Grandas, A. (1997) Stepwise solid-phase synthesis of serine-, tyrosine- and homoserine-nucleopeptides. *Nucleosides Nucleotides*, 16, 1487-1488. #10115

857. Benkovic, S., Miller, G.P., Zong, W. & Smiley, J. (1997) Combinatorial libraries of peptides, proteins, and antibodies using biological systems. In S.R. Wilson & A.W. Czarnik (Eds.), *Combinatorial Chemistry. Synthesis and Application*. (pp. 241-260). John Wiley & Sons, Inc., New York. #8361

858. Bennett, F.A., Barlow, D.J., Dodoo, A.N.O., Hider, R.C., Lansley, A.B., Lawrence, M.J., Marriott, C., & Bansal, S.S. (1997) L-(6,7-Dimethoxy-4-coumaryl)alanine: An intrinsic probe for the labelling of peptides. *Tetrahedron Lett.*, 38, 7449-7452. #9574

859. Beranova-Giorgianni, S., & Desiderio, D.M. (1997) Fast atom bombardment mass spectrometry of synthetic peptides. *Methods Enzymol.*, 289, 478-499. #10003

860. Bernhardt, A., Drewello, M., & Schutkowski, M. (1997) The solid-phase synthesis of side-chain-phosphorylated peptide-4-nitroanilides. *J. Pept. Res.*, 50, 143-152. #9410

861. Bitan, G., Sukhotinsky, I., Mashriki, Y., Hanani, M., Selinger, Z., & Gilon, C. (1997) Synthesis and biological activity of novel backbone-bicyclic substance-P analogs containing lactam and disulfide bridges. *J. Pept. Res.*, 49, 421-426. #9198

862. Blackburn, C., & Kates, S.A. (1997) Solid-phase synthesis of cyclic homodetic peptides. *Methods Enzymol.*, 289, 175-198. #9857

863. Blackburn, C., Pingali, A., Kehoe, T., Herman, L.W., Wang, H.Q., & Kates, S.A. (1997) Libraries of angiotensin converting enzyme inhibitors: Solid-phase synthesis and affinity selection. *Bioorg. Med. Chem. Lett.*, 7, 823-826. #9255

864. Blondelle, S.E., Forood, B., Houghten, R.A., & Perez-Paya, E. (1997) Polyaniline-based peptides as models for self-associated beta-pleated-sheet complexes. *Biochemistry*, 36, 8393-8400. #9477

865. Bodi, J., Suli-Varga, H., Ludanyi, K., Vekey, K., & Orosz, G. (1997) New startegy for the synthesis of large peptides as applied to the C-terminal cysteine-rich 41 amino acid fragment of the mouse agouti protein. *Tetrahedron Lett.*, 38, 3293-3296. #8799

866. Boumrah, D., Campbell, M.M., Fenner, S., & Kinsman, R.G. (1997) Spacer molecules in peptide sequences: Incorporation into analogues of atrial natriuretic factor. *Tetrahedron*, 53, 6977-6992. #9106

867. Braisted, A.C., Judice, J.K., & Wells, J.A. (1997) Synthesis of proteins by subtiligase. *Methods Enzymol.*, 289, 298-313. #9997

868. Bray, A.M. (1997) Multiple peptide synthesis with commercially available Multipin kits. In I. Lefkovits (Ed.), *Immunology Methods Manual*. (pp. 809-816). Academic Press, San Diego. #9738

869. Breslav, M., Becker, J., & Naider, F. (1997) Dithioketal formation during synthesis of Bpa containing peptides. *Tetrahedron Lett.*, 38, 2219-2222. #8774

870. Bruninghoff, A., Schlosser, S., Groger, G., Ortigao, J.F.R., & Seliger, H. (1997) Solid phase synthesis, cloning and expression of a synthetic gene encoding a collagen-like peptide. *Nucleosides Nucleotides*, 16, 875-882. #9423

871. Burdick, D.J., & Stults, J.T. (1997) Analysis of peptide synthesis products by electrospray ionization mass spectrometry. *Methods Enzymol.*, 289, 499-519. #10004

872. Burgess, K., Lim, D., Bois-Choussy, M., & Zhu, J. (1997) Rapid and efficient solid phase syntheses of cyclic peptides with endocyclic biaryl ether bonds. *Tetrahedron Lett.*, 38, 3345-3348. #8804

873. Burgess, K., Li, W., Lim, D.Y., & Moyesherman, D. (1997) Comparisons of the conformational biases imposed by trans-2,3-methanomethionine and alpha-methylmethionine. *Biopolymers*, 42, 439-453. #10132

874. Burgess, K., Li, W., Linthicum, D.S., Ni, Q., Pledger, D., Rothman, R.B., & Shitangkoon, A. (1997) Libraries of opiate and anti-opiate peptidomimetics containing 2,3-methanoleucine. *Bioorg. Med. Chem.*, 5, 1867-1871. #10131

875. Caciagli, V., Lombardi, P., Tuchalski, G., Hansicke, A., & Cardinali, F. (1997) Large-scale production of peptides using the solid-phase continuous flow method. Preparative synthesis of the novel tachykinin antagonist MEN 10628. *J. Peptide Sci.*, 3, 224-230. #9936

876. Campbell, R.M., Felix, A.M., Stricker, P.R., Miller, R.W., Lee, Y., Lambros, T.J., Eisenbeis, H.G., Ahmad, M., & Heimer, E.P. (1997) Pegylates peptides. V. Carboxy-terminal PEGylated analogs of growth hormone-releasing factor (GRF) display enhanced duration of biological activity *in vivo*. *J. Pept. Res.*, 49, 527-537. #9944

877. Canne, L.E., Winston, R.L., & Kent, S.B.H. (1997) Synthesis of a versatile purification handle for use with Boc chemistry solid phase peptide synthesis. *Tetrahedron Lett.*, 38, 3361-3364. #8809

878. Cao, Y.J., Kojro, E., Gimpl, G., Jasionowski, M., Kasprzykowski, F., Lankiewicz, L., & Fahrenholz, F. (1997) Photoaffinity labeling analysis of the interaction of pituitary adenylate-cyclase-activating polypeptide (PACAP) with the PACAP type I receptor. *Eur. J. Biochem.*, 244, 400-406. #9291

879. Carey, R.I., Bordas, L.W., Slaughter, R.A., Meadows, B.C., Wadsworth, J.L., Huang, H.H., Smith, J.J., & Furusjo, E. (1997) Preparation and properties of N-alpha-Bpoc-amino acid pentafluorophenyl esters. *J. Pept. Res.*, 49, 570-581. #9437

880. Carrasco, M.R., Fitzgerald, M.C., Oda, Y., & Kent, S.B.H. (1997) Direct monitoring of organic reactions on polymeric supports. *Tetrahedron Lett.*, 38, 6331-6334. #9318

881. Chandy, M.C., & Pillai, V.N.R. (1997) Gel phase synthesis of an octapeptide, H-Lys-Gly-Asp-Glu-Glu-Ser-Leu-Ala-OH on a flexible triethyleneglycol dimethacrylate-crosslinked polystyrene support. *Ind. J. Chem. B-Org. Chem. Med. Chem.*, 36, 303-307. #9539

882. Chen, J.J., & Spatola, A.F. (1997) Solid phase synthesis of peptide hydroxamic acids. *Tetrahedron Lett.*, 38, 1511-1514. #8374

883. Chen, L., Zoulikova, I., Slaninova, J., & Barany, G. (1997) Synthesis and pharmacology of novel analogues of oxytocin and deaminoxytocin: Directed methods for the construction of disulfide and trisulfide bridges in peptides. *J. Med. Chem.*, 40, 864-876. #9286

884. Chen, S.T., Tseng, P.H., Yu, H.M., Wu, C.Y., Hsiao, K.F., Wu, S.H., & Wang, K.T. (1997) The studies of microwave effects on the chemical reactions. *J. Chin. Chem. Soc.*, 44, 169-182. #9531

885. Chillemi, F., Galatulas, I., Fraccari, A., Bossa, R., & Francescato, P. (1997) Enhancement of cytotoxic activity by synthesis of peptide multimeric forms. *Anticancer Res.*, 17, 3609-3611. #9924

886. Chirinos-Rojas, C.L., Steward, M.W., & Partidos, C.D. (1997) Of a solid-phase random peptide library to identify inhibitors of TNF-alpha mediated cytotoxicity in vitro. *Cytokine*, 9, 226-232. #9258

887. Cho, Y.R., Entress, R.M.H., & Williams, D.H. (1997) Synthesis of cell-wall analogues of vancomycin-resistant enterococci using solid phase peptide synthesis. *Tetrahedron Lett.*, 38, 5229-5232. #9036

888. Choi, H., Murray, T.F., DeLander, G.E., Schmidt, W.K., & Aldrich, J.V. (1997) Synthesis and opioid activity of [D-Pro(10)] dynorphin A-(1-11) analogues with N-terminal alkyl substitution. *J. Med. Chem.*, 40, 2733-2739. #9401

889. Cilli, E.M., Marchetto, R., Schreier, S., & Nakaie, C.R. (1997) Use of spin label EPR spectra to monitor peptide chain aggregation inside resin beads. *Tetrahedron Lett.*, 38, 517-520. #12510

890. Cody, W.L., He, J.X., Reily, M.D., Haleen, S.J., Walker, D.M., Reyner, E.L., Stewart, B.H., & Doherty, A.M. (1997) Design of a potent combined pseudopeptide endothelin-A/endothelin-B receptor antagonist, AC-DBHG(16)-Leu-Asp-Ile-[NME]Ile-Trp(21) (PD 156252): Examination of its pharmacokinetic and spectral properties. *J. Med. Chem.*, 40, 2228-2240. #9483

891. Corey, D.R. (1997) Peptide nucleic acids: Expanding the scope of nucleic acid recognition. *Trends Biotech.*, 15, 224-229. #9192

892. Cormack, P.A., Moore, B.D., & Sherrington, D.C. (1997) Monodisperse liquid crystalline peptides. *J. Material. Chem.*, 7, 1977-1983. #10147

893. Cross, T.A. (1997) Solid-state nuclear magnetic resonance characterization of gramicidin channel structure. *Methods Enzymol.*, 289, 672-696. #9930

894. Dahmani, B., Krebs, D., el Antri, S., Troalen, F., & Fermandjian, S. (1997) Synthesis and FTIR conformational studies of peptides from the basic region of c-Jun: A critical analysis on the basis of CD and NMR data. *J. Biomol. Struct. Dyn.*, 14, 429-439. #9287

895. Davies, M., & Bradley, M. (1997) C-terminally modified peptides and peptide libraries: Another end to peptide synthesis. *Angew. Chem. Int. Ed.*, 36, 1097-1099. #12487

896. Dawson, P.E., Fitzgerald, M.C., Muir, T.W., & Kent, S.B. (1997) Methods for the chemical synthesis and readout of self-encoded arrays of polypeptide analogues. *J. Amer. Chem. Soc.*, 119, 7917-7927. #10155

897. Del Nery, E., Juliano, M.A., Meldal, M., Svendsen, I., Scharfstein, J., Walmsley, A., & Juliano, L. (1997) Characterization of the substrate specificity of the major cysteine protease (cruzipain) from *Trypanosoma cruzi* using a portion-mixing combinatorial library and fluorogenic peptides. *Biochem. J.*, 323, 427-433. #9248

898. Dettin, M., Pegoraro, S., Rovero, P., Bicciato, S., Bagno, A., & Di Bello, C. (1997) SPPS of difficult sequences: A comparison of chemical conditions, synthetic strategies and on-line monitoring. *J. Pept. Res.*, 49, 103-111. #9225

899. Dettin, M., Roncon, R., Simonetti, M., Tormene, S., Falcigno, L., Paolillo, L., & Di Bello, C. (1997) Synthesis, characterization and conformational analysis of gp120-derived synthetic peptides that specifically enhance HIV-1 infectivity. *J. Peptide Sci.*, 3, 15-30. #8579

900. Dhalluin, C., Boutillon, C., Tartar, A., & Lippens, G. (1997) Magic angle spinning nuclear magnetic resonance in solid-phase peptide synthesis. *J. Amer. Chem. Soc.*, 119, 10494-10500. #9602

901. Dong, C.Z., Derocquigny, H., Remy, E., Mellac, S., Fournie-Zaluski, M.C., & Roques, B.P. (1997) Synthesis and biological activities of fluorescent acridine-containing HIV-1 nucleocapsid proteins for investigation of nucleic acid-ncp7 interactions. *Int. J. Peptide Prot. Res.*, 50, 269-278. #10161

902. Dorner, B., Ostresh, J.M., Blondelle, S.E., Dooley, C.T. & Houghten, R.A. (1997) Peptidomimetic synthetic combinatorial libraries. In *Anonymous, Advances in Amino Acid Mimetics and Peptidomimetics.* (pp. 109-125). JAI Press, Inc., #11629

903. Drouot, C., Enjalbal, C., Fulcrand, P., Martinez, J., & Aubagnac, J.L. (1997) Tof-SIMS analysis of polymer bound Fmoc-protected peptides. *Tetrahedron Lett.*, 38, 2455-2458. #8779

904. Eggleston, I. M., Peggion, C., Svendsen, J. S., and Mutter, M. Practical synthesis and application of a beta-turn mimetic for SPPS. 1997. Poster presented at the Fifth International Symposium on Solid Phase Synthesis & Combinatorial Chemical Libraries, London, England, UK on 2nd-6th September 1997. #9699

905. Egner, B.J., & Bradley, M. (1997) Monitoring the solid phase synthesis of analogues of lysobactin and the katanosins using in situ Maldi-Tof MS. *Tetrahedron*, 53, 14021-14030. #10166

906. Eichhorn, U., Jakubke, H.D., Schaaf, R., & Beck-Piotraschke, K. (1997) Solid-phase acyldonor as a substrate pool in kinetically controlled protease-catalysed peptide synthesis. *J. Peptide Sci.*, 3, 261-266. #9983

907. Eichler, J., & Houghten, R.A. (1997) Synthesis of cyclic disulfide peptides: Comparison of oxidation methods. *Protein Peptide Lett.*, 4, 157-164. #11603

908. Elgendy, S., Patel, G., Green, D., Goodwin, C.A., Scully, M.F., Husman, W., Skordalakes, E., Kakkar, V.V., & Deadman, J.J. (1997) Design of a novel class of bifunctional thrombin inhibitors, synthesised by the first application of peptide boronates in solid phase chemistry. *Tetrahedron Lett.*, 38, 3305-3308. #8802

909. Elofsson, M., Salvador, L.A., & Kihlberg, J. (1997) Preparation of Tn and sialyl Tn building blocks used in Fmoc solid-phase synthesis of glycopeptide fragments from HIV gp120. *Tetrahedron*, 53, 369-390. #12511

910. Epton, R. (1997) Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries. Mayflower Scientific Limited, Birmingham. ISBN 0952701111 #8773

911. Evans, D.M., & Herman, L.W. (1997) Identification of peptide ligands specific for the sugar-binding site of concanavalin A by screening a synthetic peptide combinatorial library. *J. Biomol. Screen.*, 2, 225-233. #10168

912. Fehrentz, J.A., Paris, M., Heitz, A., Velek, J., Winternitz, F., & Martinez, J. (1997) Solid phase synthesis of C-terminal peptide aldehydes. *J. Org. Chem.*, 62, 6792-6796. #10172

913. Feng, Y.B., Melacini, G., & Goodman, M. (1997) Collagen-based structures containing the peptoid residue N-isobutylglycine (Nleu): Synthesis and biophysical studies of Gly-Nleu-Pro sequences by circular dichroism and optical rotation. *Biochemistry*, 36, 8716-8724. #9449

914. Fields, G.B., & Colowick, S.P. (1997) Solid-Phase Peptide Synthesis. Academic Press, San Diego. ISBN 0121821900 #9830

915. Flouzat, C., Marguerite, F., Croizet, F., Percebois, M., Monteil, A., & Combourieu, M. (1997) Solid-phase synthesis of "head-to-side chain" cyclic tripeptides using allyl deprotection. *Tetrahedron Lett.*, 38, 1191-1194. #8390

916. Frank, R. (1997) Multiple peptide synthesis with SPOT technique. In I. Lefkovits (Ed.), *Immunology Methods Manual.* (pp. 783-795). Academic Press, San Diego. #9739

917. Frank, R. (1997) Principles of simultaneous synthesis of multiple peptides. In I. Lefkovits (Ed.), *Immunology Methods Manual.* (pp. 777-781). Academic Press, San Diego. #9740

918. Franzyk, H., Christensen, M.K., Jorgensen, R.M., Meldal, M., Cordes, H., Mouritsen, S., & Bock, K. (1997) Constrained glycopeptide ligands for MPRs. Limitations of unprotected phosphorylated building blocks. *Bioorg. Med. Chem.*, 5, 21-40. #9947

919. Fujii, M., Yoshida, K., & Hidaka, J. (1997) Nucleic acid analog peptide (NAAP). 2. Syntheses and properties of novel DNA analog peptides containing nucleobase linked beta-aminoalanine. *Bioorg. Med. Chem. Lett.*, 7, 637-640. #10023

920. Fujii, M., Yamamoto, K., Hidaka, J., & Ohtsu, T. (1997) Nucleic acid analog peptide (NAAP). Solid phase synthesis of a DNA analog peptide. *Tetrahedron Lett.*, 38, 417-420. #8246

921. Furet, P., Gay, B., Garcia-Echeverria, C., Rahuel, J., Fretz, H., Schoepfer, J., & Caravatti, G. (1997) Discovery of 3-aminobenzoyloxycarbonyl as an N-terminal group conferring high affinity to the minimal phosphopeptide sequence recognized by the Grb2-SH2 domain. *J. Med. Chem.*, 40, 3551-3556. #10178

922. Futaki, S., Sogawa, K., Maruyama, J., Asahara, T., Niwa, M., & Hojo, H. (1997) Preparation of peptide thioesters using Fmoc-solid-phase peptide synthesis and its application to the construction of a template-assembled synthetic protein (TASP). *Tetrahedron Lett.*, 38, 6237-6240. #9316

923. Galeotti, N., Plagnes, E., & Jouin, P. (1997) Synthesis of peptidyl aldehydes from thiazolidines. *Tetrahedron Lett.*, 38, 2459-2462. #8780

924. Gariani, T., & Leatherbarrow, R.J. (1997) Stability of protease inhibitors based on the Bowman-Birk reactive site loop to hydrolysis by proteases. *J. Pept. Res.*, 49, 467-475. #9435

925. Gasparri, A., Sidoli, A., Sanchez, L.P., Longhi, R., Siccardi, A.G., Marchisio, P.C., & Corti, A. (1997) Chromogranin a fragments modulate cell adhesion: Identification and characterization of a pro-adhesive domain. *Journal of Biological Chemistry*, 272, 20835-20843. #9402

926. Giblin, M.F., Jurisson, S.S., & Quinn, T.P. (1997) Synthesis and characterization of rhenium-complexed alpha- melanotropin analogs. *Bioconjug. Chem.*, 8, 347-353. #9206

927. Gobbo, M., Biondi, L., Cavaggion, F., Filira, F., Piek, T., Mantel, P., & Rocchi, R. (1997) Synthesis and biological activities of head-to-tail cyclic bradykinin analogues of varying ring size. *Int. J. Peptide Prot. Res.*, 50, 336-341. #10190

928. Goodnow, R.A.Jr., Richou, A.R., & Tam, S. (1997) Synthesis of thymine, cytosine, adenine, and guanine containing N-Fmoc-protected amino acids: Building blocks for construction of novel oligonucleotide backbone analogs. *Tetrahedron Lett.*, 38, 3195-3198. #8796

929. Goodnow, R.A.Jr., Tam, S., Pruess, D.L., & McComas, W.W. (1997) Oligomer synthesis of DNA / RNA recognition properties of a novel oligonucleotide backbone analog: Glucopyranosyl nucleic amide (GNA). *Tetrahedron Lett.*, 38, 3199-3202. #8797

930. Grant, G.A., Crankshaw, M.W., & Gorka, J. (1997) Edman sequencing as a tool for characterization of synthetic peptides. *Methods Enzymol.*, 289, 395-419. #9999

931. Griffith, D.L., O'Donnell, M.J., Pottorf, R.S., Scott, W.L., & Porco, J.A.Jr. (1997) Tandem UPS: Sequential mono- and dialkylation of resin-bound glycine via automated synthesis. *Tetrahedron Lett.*, 38, 8821-8824. #9697

932. Grim, M.D. (1997) New technology for the preparation of peptides and peptidomimetics. *Pharm. Manufact. Int.*, 49-49. #11184

933. Guibourdenche, C., Seebach, D., & Natt, F. (1997) Use of the Wolff rearrangement of diazo ketones from amino acids as a synthetic method for the formation of oligonucleo-peptides - a novel approach to chimeric biomolecules. *Helv. Chim. Acta*, 80, 1-13. #8386

934. Guichard, G., & Seebach, D. (1997) Solid-phase synthesis of beta-oligopeptides. *Chimia*, 51, 315-318. #9538

935. Guo, Z.W., Nakahara, Y., & Ogawa, T. (1997) Solid-phase synthesis of CD52 glycopeptide and an efficient route to Asn-core pentasaccharide conjugate. *Bioorg. Med. Chem.*, 5, 1917-1924. #10199

936. Guo, Z.W., Nakahara, Y., & Ogawa, T. (1997) Solid-phase synthesis of a glycosylated peptide fragment of the il-8 receptor containing two vicinal oligosaccharide chains. *Carbohydr. Res.*, 303, 373-377. #10200

937. Guo, Z.W., Nakahara, Y., & Ogawa, T. (1997) Solid-phase synthesis of the CD52 glycopeptide carrying an N-linked core pentasaccharide structure. *Angew. Chem. Int. Ed.*, 36, 1464-1466. #12512

938. Guy, C.A., & Fields, G.B. (1997) Trifluoroacetic acid cleavage and deprotection of resin-bound peptides following synthesis by Fmoc chemistry. *Methods Enzymol.*, 289, 67-83. #9992

939. Hackeng, T.M., Mounier, C.M., Bon, C., Dawson, P.E., Griffin, J.H., & Kent, S.B.H. (1997) Total chemical synthesis of enzymatically active human type II secretory phospholipase A(2). *Proc. Natl. Acad. Sci. USA*, 94, 7845-7850. #9451

940. Hamy, F., Felder, E.R., Heizmann, G., Lazzins, J., Aboul-ela, F., Varani, G., Karn, J., & Klimkait, T. (1997) An inhibitor of the Tat/TAR RNA interaction that effectively suppresses HIV-1 replication. *Proc. Natl. Acad. Sci. USA*, 94, 3548-3553. #8591

941. Han, Y.X., Albericio, F., & Barany, G. (1997) Occurrence and minimization of cysteine racemization during stepwise solid-phase peptide synthesis. *J. Org. Chem.*, 62, 4307-4312. #9506

942. Han, Y.X., & Barany, G. (1997) Novel s-xanthenyl protecting groups for cysteine and their applications for the n-alpha-9-fluorenylmethoxycarbonyl (fmoc) strategy of peptide synthesis. *J. Org. Chem.*, 62, 3841-3848. #9074

943. Harada, K., Martin, S.S., Tan, R.Y., & Frankel, A.D. (1997) Molding a peptide into an RNA site by in vivo peptide evolution. *Proc. Natl. Acad. Sci. USA*, 94, 11887-11892. #10206

944. Harthfritschy, E., & Cantacuzene, D. (1997) Esterification of 9-fluorenylmethoxycarbonyl-glycosylated serine and cysteine derivatives with an hydroxymethyl resin. *Int. J. Peptide Prot. Res.*, 50, 415-420. #10208

945. Henkel, B., Zhang, L.S., & Bayer, E. (1997) Investigations on solid-phase peptide synthesis in N-to-C direction (inverse synthesis). *Liebig. Ann.*, 2161-2168. #10211

946. Henkel, B., Zeng, W., & Bayer, E. (1997) 9-Hydroxy-9-(4-carboxyphenyl)xanthene: A new linker for the synthesis of peptide amides. *Tetrahedron Lett.*, 38, 3511-3512. #8849

947. Hernandez, J.F., Bersch, B., Petillot, Y., Gagnon, J., & Arlaud, G.J. (1997) Chemical synthesis and characterization of the epidermal growth factor-like module of human complement protease C1r. *J. Pept. Res.*, 49, 221-231. #9213

948. Hoffmann, R., Hoffmann, T., Tholey, A., Schulte, A.C., & Kalbitzer, H.R. (1997) Synthesis and NMR spectroscopy of peptides containing either phosphorylated or phosphonylated cis- or trans-4-hydroxy-l-proline. *J. Pept. Res.*, 49, 163-173. #9227

949. Hojo, H., Akamatsu, Y., Yamauchi, K., Kinoshita, M., Miki, S., & Nakamura, Y. (1997) Synthesis and structural characterization of triple-helical peptides which mimic the ligand binding site of the human macrophage scavenger receptor. *Tetrahedron*, 53, 14263-14274. #10215

950. Holm, A., Ostergaard, S., Hodges, R.S., Husband, D. & Buus, S. (1997) Multiple peptide synthesis on resin. In I. Lefkovits (Ed.), *Immunology Methods Manual*. (pp. 847-851). Academic Press, San Diego. #9737

951. Holmes, D.L., Smith, E.M., & Nowick, J.S. (1997) Solid-phase synthesis of artificial beta-sheets. *J. Amer. Chem. Soc.*, 119, 7665-7669. #10216

952. Hruby, V.J., Ahn, J.M., & Liao, S. (1997) Synthesis of oligopeptide and peptidomimetic libraries. *Curr. Opin. Chem. Biol.*, 1, 114-119. #8770

953. Humphrey, J.M., & Chamberlin, A.R. (1997) Chemical synthesis of natural product peptides: Coupling methods for the incorporation of noncoded amino acids into peptides [review]. *Chem. Rev.*, 97, 2243-2266. #10225

954. Husbyn, M., Orning, L., Sakariassen, K.S., & Fischer, P.M. (1997) Peptides corresponding to the second epidermal growth factor-like domain of human blood coagulation factor. VII. Synthesis, folding and biological activity. *Int. J. Peptide Prot. Res.*, 50, 475-482. #10226

955. Ingenhoven, N., & Beck-Sickinger, A.G. (1997) Fluorescent labelled analogues of neuropeptide Y for the characterization of cells expressing NPY receptor subtypes. *J. Recept. Signal Transduct. Res.*, 17, 407-418. #9953

956. Izdebski, J., Orlowska, A., Pachulska, M., & Witkowska, E. (1997) Peptide synthesis with the use of N,N'-dicyclopentylicarbodiimide. *Polish J. Chem.*, 71, 903-907. #9542

957. Jaikaran, D.C.J., Woolley, G.A., Sansom, M.S., Wenschuh, H., & Biggin, P.C. (1997) Structure-function relationships in helix-

bundle channels probed via total chemical synthesis of alamethicin dimers: Effects of a Gln7 to Asn7 mutation. *Biochemistry*, 36, 13873-13881. #9937

958. Janevik-Ivanovska, E., Gruaz-Guyon, A., Barbet, J., Rostene, W., Tartar, A., Milhaud, G., Cohen, M., Hillairet de Boisferon, M., & Gautherot, E. (1997) Bivalent hapten-bearing peptides designed for iodine-131 pretargeted radioimmunotherapy. *Bioconjug. Chem.*, 8, 526-533. #9434

959. Jelinek, R., Valente, A.P., Valentine, K.G., & Opella, S.J. (1997) Two-dimensional NMR spectroscopy of peptides on beads. *J. Magn. Resonance*, 125, 185-187. #9150

960. Johansson, E., Lange, S., & Lonnroth, I. (1997) Identification of an active site in the antisecretory factor protein. *BBA-Mol. Basis Dis.*, 1362, 177-182. #11170

961. Jones, D.M., Sueiras-Diaz, J., Szelke, M., Leckie, B.J., Beattie, S.R., Morton, J., Neidle, S., & Kuroda, R. (1997) New renin inhibitors containing novel analogues of statine. *J. Pept. Res.*, 50, 109-121. #9409

962. Kaiser, T., & Voelter, W. (1997) Solid phase peptide synthetic approaches to mouse macrophage migration inhibitory factor (mMIF): Comparison of different strategies producing the C-terminal difficult sequence peptide mMIF(93-115) [german]. *Zeitschrift fur Naturforschung Section B-A Journal of Chemical Sciences*, 52, 281-295. #9170

963. Kaiser, T., & Voelter, W. (1997) Solid phase peptide synthetic approaches to mouse macrophage migration inhibitory factor (mMIF): Synthesis of peptide fragments for a convergent solid phase peptide synthetic strategy [german]. *Journal fur Praktische Chemie-Chemiker-Zeitung*, 339, 371-380. #9072

964. Karginov, V.A., Mamaev, S.V., An, H.Y., Vancleve, M.D., Hecht, S.M., Komatsoulis, G.A., & Abelson, J.N. (1997) Probing the role of an active site aspartic acid in dihydrofolate reductase. *J. Amer. Chem. Soc.*, 119, 8166-8176. #10235

965. Karlstrom, A. H. and Und n, A. E. Development of a new class of protecting groups for use in solid phase peptide synthesis. 1997. Poster presented at the 15th APS, June 14-19, 1997, Nashville, Tennessee. #11796

966. Kellam, B., Chan, W.C., Chhabra, S.R., & Bycroft, B.W. (1997) Transient affinity tags based on the Dde protection/deprotection strategy: Synthesis and application of 2-biotinyl- and 2-hexanoyldimedone. *Tetrahedron Lett.*, 38, 5391-5394. #9054

967. Kennedy, K.J., Lundquist, J.T.IV., Simandan, T.L., Beeson, C.C., & Dix, T.A. (1997) Asymmetric synthesis of non-natural homologues of lysine. *Bioorg. Med. Chem. Lett.*, 7, 1937-1940. #9426

968. Kihlberg, J., Elofsson, M., & Salvador, L.A. (1997) Direct synthesis of glycosylated amino acids from carbohydrate peracetates and Fmoc amino acids: Solid-phase synthesis of biomedically interesting glycopeptides. *Methods Enzymol.*, 289, 221-245. #9934

969. Kihlberg, J., & Elofsson, M. (1997) Solid-phase synthesis of glycopeptides: Immunological studies with T cell stimulating glycopeptides. *Curr. Med. Chem.*, 4, 85-116. #12516

970. Kimura, T., Fukui, T., Tanaka, S., Akaji, K., & Kiso, Y. (1997) A reductive acidolysis final deprotection strategy in solid phase peptide synthesis based on safety-catch protection. *Chem. Pharm. Bull. Tokyo*, 45, 18-26. #8234

971. King, A.D., Huh, N.W., Pedersen, L.G., & Hiskey, R.G. (1997) Studies on the peptide corresponding to residues 34-47 of bovine factor X. *J. Pept. Res.*, 50, 34-38. #9416

972. Kitagawa, K., Aida, C., Fujiwara, H., Yagami, T., & Futaki, S. (1997) Efficient solid-phase synthesis of sulfated tyrosine-containing peptides using 2-chlorotriyl resin: Facile synthesis of gastrin/cholecystokinin peptides. *Tetrahedron Lett.*, 38, 599-602. #8237

973. Klein, S.I., Czekaj, M., Molino, B.F., & Chu, V. (1997) Constrained beta-alanine based GpIIb/IIa antagonists. *Bioorg. Med. Chem. Lett.*, 7, 1773-1778. #9473

974. Klodt, J., Adermann, K., Forssmann, W.G., Rosch, P., Martin, S., Marx, U.C., & Kuhn, M. (1997) Synthesis, biological activity and isomerism of guanylate cyclase C-activating peptides guanylin and uroguanylin. *J. Pept. Res.*, 50, 222-230. #9925

975. Ko, S.Y., & Wenger, R.M. (1997) 53. Solid-phase total synthesis of cyclosporine analogues. *Helv. Chim. Acta*, 80, 695-705. #9087

976. Koch, T., Borre, M.B., Naesby, M., Batz, H.G., & Orum, H. (1997) PNA: Synthesis and diagnostic application. *Nucleosides Nucleotides*, 16, 1771-1774. #9741

977. Koppitz, M., Huenges, M., Gratias, R., Kessler, H., Goodman, S.L., & Jonczyk, A. (1997) Synthesis of unnatural lipophilic N-(9H-fluoren-9-yl-methoxy)carbonyl-substituted alpha-amino acids and their incorporation into cyclic RGD-peptides: A structure activity study. *Helv. Chim. Acta*, 80, 1280-1300. #9461

978. Kowalczyk, C., & O'Shea, M. (1997) Solid-phase synthesis of neuropeptides by Fmoc strategies. *Methods Mol. Biol.*, 73, 41-48. #9952

979. Lal, D., Mahale, S.D., Nandedkar, T.D., & Iyer, K.S. (1997) Identification of bioneutralization epitopes of human follicle stimulating hormone in the regions 31-52 and 66-75 of its beta- subunit. *J. Reprod. Immunol.*, 33, 1-14. #9202

980. Lebl, M., & Krchnak, V. (1997) Synthetic peptide libraries. *Methods Enzymol.*, 289, 336-392. #9998

981. Lelievre, D., Hsu, S.C., Daubos, P., Favard, C., Vigny, P., Trudelle, Y., Steward, M.W., & Delmas, A. (1997) Structural properties of chimeric peptides containing a T-cell epitope linked to a fusion peptide and their importance for in vivo induction of cytotoxic T-cell responses. *Eur. J. Biochem.*, 249, 895-904. #10264

982. Leonard, D.M., Shuler, K.R., Poulter, C.J., Eaton, S.R., Sawyer, T.K., Hodges, J.C., Su, T.Z., Scholten, J.D., Gowan, R.C., Sebolt-Leopold, J.S., & Doherty, A.M. (1997) Structure-activity relationships of cysteine-lacking pentapeptide derivatives that inhibit ras farnesyltransferase. *J. Med. Chem.*, 40, 192-200. #8243

983. Liakopouloukyriakides, M., Pachatouridis, C., Ekateriniadou, L., & Papageorgiou, V.P. (1997) A new synthesis of the tripeptide Gly-His-Lys with antimicrobial activity. *Amino Acids*, 13, 155-161. #10266

984. Liebe, B., & Kunz, H. (1997) Solid-phase synthesis of a tumor-associated sialyl-TN antigen glycopeptide with a partial sequence of the "tandem repeat" of the MUC-1 mucin. *Angew. Chem. Int. Ed.*, 36, 618-621. #12518

985. Liu, C.F., & Tam, J.P. (1997) Synthesis of a symmetric branched peptide. Assembly of a cyclic peptide on a small tetraacetate template. *Chem. Commun.*, 1619-1620. #11687

986. Liu, W.Q., Roques, B.P., & Garbay, C. (1997) Synthesis of 1-2,3,5,6-tetrafluoro-4-(phosphonomethyl) phenylalanine, a novel non-hydrolyzable phosphotyrosine mimetic and 1-4-(phosphonodifluoromethyl)phenylalanine. *Tetrahedron Lett.*, 38, 1389-1392. #8379

987. Lloyd-Williams, P., Albericio, F., & Giralt, E. (1997) *Chemical Approaches to the Synthesis of Peptides and Proteins*. CRC Press, Boca Raton. ISBN 0849391423 #9305

988. Lohse, J., Nielsen, P.E., Harrit, N., & Dahl, O. (1997) Fluorescein-conjugated lysine monomers for solid phase synthesis of fluorescent peptides and PNA oligomers. *Bioconjug. Chem.*, 8, 503-509. #9433

989. Lokey, R.S., Kwok, Y., Guelev, V., Pursell, C.J., Hurley, L.H., & Iverson, B.L. (1997) A new class of polyintercalating molecules. *J. Amer. Chem. Soc.*, 119, 7202-7210. #9419

990. Lou, Q., Leftwich, M.E., Mckay, R.T., Salmon, S.E., Rychetsky, L., & Lam, K.S. (1997) Potent pseudosubstrate-based peptide inhibitors for p60(c-src) protein tyrosine kinase. *Cancer Res.*, 57, 1877-1881. #9070

991. Lozanov, V., Guarnaccia, C., Patthy, A., Foti, S., & Pongor, S. (1997) Synthesis and cysteine/cysteine-catalyzed oxidative folding of the amaranth alpha-amylase inhibitor. *J. Pept. Res.*, 50, 65-72. #9417

992. Lu, H.S.M., Volk, M., Kholodenko, Y., Gooding, E., Hochstrasser, R.M., & DeGrado, W.F. (1997) Aminothiptyrosine disulfide, an optical trigger for initiation of protein folding. *J. Amer. Chem. Soc.*, 119, 7173-7180. #9418

993. Lucietto, P., Mascagni, P., Giuliani, P., Ball, H.L., & Fossati, G. (1997) *Mycobacterium tuberculosis chaperonin 10 and N-truncated fragments. Their synthesis and purification by the isoelectric focusing technique carried out in solution*. *J. Pept. Res.*, 49, 308-323. #9950

994. Lynas, J.F., & Walker, B. (1997) Peptide argininol "inverse substrates" of anisic acid: Novel inhibitors of the trypsin-like serine proteinases. *Bioorg. Med. Chem. Lett.*, 7, 1133-1138. #10029

995. Ma, J.B., Xie, Z.D., Wang, Y.J., Wang, Y.N., Fan, Y.G., & He, B.L. (1997) Polymeric adsorbents with peptide pendants as artificial receptors for beta-lactam antibiotics by mimicking the binding sites of beta-lactamases. *Sci. China Ser. B*, 40, 405-411. #9522

996. Maeda, M., Izuno, Y., Kawasaki, K., Kaneda, Y., Mu, Y., Tsutsumi, Y., Nakagawa, S., & Mayumi, T. (1997) Amino acids and peptides. XXX.Preparation of Arg-Gly-Asp (RGD) hybrids with poly(ethylene glycol)analogs and their antimetastatic effect. *Chem. Pharm. Bull. Tokyo*, 45, 1788-1792. #10274

997. Maeda, M., Izuno, Y., Kawasaki, K., Kaneda, Y., Mu, Y., Tsutsumi, Y., Lem, K.W., & Mayumi, T. (1997) Amino acids and peptides. XXXII.A bifunctional poly(ethylene glycol)hybrid of fibronectin-related peptides. *Biochem. Biophys. Res. Commun.*, 241, 595-598. #10273

998. Maletinska, L., Neugebauer, W., Perodin, J., Lefebvre, M., & Escher, E. (1997) Angiotensin analogues palmitoylated in positions 1and 4. *J. Med. Chem.*, 40, 3271-3279. #9940

999. Manning, M., Cheng, L.L., Stoev, S., Klis, W.A., Nawrocka, E., Olma, A., Sawyer, W.H., Wo, N.C., & Chan, W.Y. (1997) Position three in vasopressin antagonist tolerates conformationally restricted and aromatic amino acid substitutions: A striking contrast with vasopressin agonists. *J. Peptide Sci.*, 3, 31-46. #8580

1000. Mant, C.T., Kondejewski, L.H., Cachia, P.J., Monera, O.D., & Hedges, R.S. (1997) Analysis of synthetic peptides by high-performance liquid chromatography. *Methods Enzymol.*, 289, 426-469. #10001

1001. Marsh, I.R., & Bradley, M. (1997) Solid phase synthesis of polyamine conjugates for the study of trypanothione reductase. *Tetrahedron*, 53, 17317-17334. #10278

1002. Marsh, I.R., Bradley, M., & Teague, S.J. (1997) Solid-phase total synthesis of oscillamide Y and analogues. *J. Org. Chem.*, 62, 6199-6203. #10279

1003. Marti, R.E., Bleicher, K.H., & Bair, K.W. (1997) Solid phase synthesis of beta-peptides via Arndt-Eistert homologation of Fmoc-protected amino acid diazoketones. *Tetrahedron Lett.*, 38, 6145-6148. #9313

1004. Mayo, K.H. (1997) Solution nuclear magnetic resonance characterization of peptide folding. *Methods Enzymol.*, 289, 646-672. #10009

1005. Meisenbach, M., Echner, H., & Voelter, W. (1997) New methoxy-substituted 9-phenylxanthen-9-ylamine linkers for the solid phase synthesis of protected peptide amides. *Chem. Commun.*, 849-850. #9124

1006. Meisenbach, M., & Voelter, W. (1997) New methoxy-substituted tritylamine linkers for the solid phase synthesis of protected peptide amides. *Chem. Lett.*, 1265-1266. #10289

1007. Meldal, M. (1997) Properties of solid supports. *Methods Enzymol.*, 289, 83-104. #9929

1008. Meldal, M., Juliano, M.A., & Jansson, A.M. (1997) Azido acids in a novel method of solid-phase peptide synthesis. *Tetrahedron Lett.*, 38, 2531-2534. #8781

1009. Merchan, F.L., Merino, P., & Tejero, T. (1997) A new entry to glycosylamines. *Glycoconjugate J.*, 14, 497-499. #9480

1010. Merrifield, B. (1997) Concept and early development of solid-phase peptide synthesis. *Methods Enzymol.*, 289, 3-13. #9932

1011. Mihara, H., Hayashida, J., Hasegawa, H., Ogawa, H.I., Fujimoto, T., & Nishino, N. (1997) A pair of pyrene groups as a conformational probe for antiparallel beta-sheet structure, formed in cyclic peptides. *J. Chem. Soc. Perkin Trans. 2*, 517-522. #9174

1012. Miller, S.C., & Scanlan, T.S. (1997) Site-selective N-methylation of peptides on solid support. *J. Amer. Chem. Soc.*, 119, 2301-2302. #9552

1013. Milton, S. C. F., de L.Milton, R. C., Kates, S. A., and Glabe, C. Synthesis of Alzheimer's (1-42)A beta-amyloid peptide with preformed Fmoc-aminoacyl fluorides. In: D.R. Marshak. (Eds.) 1997; Academic Press, San Diego,CA p.865 Tech.Protein Chem. VIII (Symp.Protein Soc.)10th. #9669

1014. Mizukoshi, T., Ariyoshi, Y., Suzuki, E., & Kohmura, M. (1997) Structure and dynamic studies by NMR of the potent sweet protein monellin and a non-sweet analog. Evidence on the importance of residue AspB7 for sweet taste. *FEBS Lett.*, 413, 409-416. #9943

1015. Mokotoff, M., Swanson, D.P., Jonnalagadda, S.S., Epperly, M.W., & Brown, M.L. (1997) Evaluation of laminin peptide fragments labeled with indium-111 for the potential imaging of malignant tumors. *J. Pept. Res.*, 49, 510-516. #9436

1016. Moore, W.T. (1997) Laser desorption mass spectrometry. *Methods Enzymol.*, 289, 520-542. #10005

1017. Moos, W.H. (1997) Introduction: Combinatorial chemistry approaches the next millennium. In A.W. Czarnik & S.H. DeWitt (Eds.), *A Practical Guide to Combinatorial Chemistry*. (pp. 1-16). American Chemical Society, Washington, DC. #11694

1018. Muir, T.W., Dawson, P.E., & Kent, S.B.H. (1997) Protein synthesis by chemical ligation of unprotected peptides in aqueous solution. *Methods Enzymol.*, 289, 266-298. #9996

1019. Nakahara, Y., Ito, Y., & Ogawa, T. (1997) Total synthesis of B-chain of human alpha2HS glycoprotein. *Tetrahedron Lett.*, 38, 7211-7214. #9562

1020. Nastri, F., Lombardi, A., Morelli, G., Maglio, O., Dauria, G., Pedone, C., & Pavone, V. (1997) Hemoprotein models based on a covalent helix-heme-helix sandwich. 1. Design, synthesis, and characterization. *Chem. Eur. J.*, 3, 340-349. #9136

1021. Nicolas, E., Pujades, M., Bacardit, J., Giralt, E., & Albericio, F. (1997) A new approach to Hmb-backbone protection of peptides: Synthesis and reactivity of N(alpha)-Fmoc-N(alpha)-(Hmb)amino acids. *Tetrahedron Lett.*, 38, 2317-2320. #8777

1022. Nicolas, E., Clemente, J., Ferrer, T., Albericio, F., & Giralt, E. (1997) The use of the Nbb-resin for the solid-phase synthesis of peptide alkylesters and alkylamides: Synthesis of leuprolide. *Tetrahedron*, 53, 3179-3194. #8369

1023. Nilsson, K.G.I., Ljunger, G., & Melin, P.M. (1997) Glycosidase-catalysed synthesis of glycosylated amino acids: Synthesis of Galnac-alpha-Ser and Glcnac-beta-Ser derivatives. *Biotechnol. Lett.*, 19, 889-892. #10304

1024. Niu, J.K., & Lawrence, S. (1997) Nonphosphorylatable tyrosine surrogates - Implications for protein kinase inhibitor design. *Journal of Biological Chemistry*, 272, 1493-1499. #8242

1025. Noda, M., & Kiffe, M. (1997) New mild acid-labile protecting groups for the guanidino function of N-alpha-fluorenylmethoxycarbonyl-l-arginine in solid-phase peptide synthesis: 10,11-Dihydro-5h-dibenzo[a,d]cyclohepten-5-yl, 2-methoxy-10,11-dihydro-5h-dibenzo[a,d]cyclohepten-5-yl and 5h-dibenzo[a,d]cyclohepten-5-yl groups. *Int. J. Peptide Prot. Res.*, 50, 329-335. #10305

1026. Nokihara, K., Hayakawa, T., Naruse, S., Ando, E., & Wray, V. (1997) Synthesis, solution structure, binding activity, and cGMP activation of human guanylin and its disulfide isomer. *Regul. Peptides*, 70, 111-120. #9945

1027. Norinder, U., Rivera, C., & Unden, A. (1997) A quantitative structure-activity relationship study of some substance P-related peptides: A multivariate approach using PLS and variable selection. *J. Pept. Res.*, 49, 155-162. #9226

1028. O'Donnell, M.J., Lugar, C.W., Pottorf, R.S., Zhou, C., Scott, W.L., & Cwi, C.L. (1997) Solid-phase synthesis of unnatural amino acids using unactivated alkyl halides. *Tetrahedron Lett.*, 38, 7163-7166. #9560

1029. Offer, J., Quibell, M., and Johnson, T. A new generation of backbone-amide protection. 1997. Poster presented at the Fifth International Symposium on Solid Phase Synthesis & Combinatorial Chemical Libraries, London, England, UK on 2nd-6th September 1997. #9607

1030. Ohta, N., Mochizuki, T., Hoshino, M., Jun, L., Kobayashi, H., & Yanaihara, N. (1997) Adrenocorticotrophic hormone-releasing activity of urotensin i and its fragments in vitro. *Int. J. Peptide Prot. Res.*, 50, 178-183. #10309

1031. Okada, Y., Wang, J., Yamamoto, T., Yokoi, T., & Mu, Y. (1997) Amido acids and peptides. L. Development of a novel N-pi-protecting group for histidine, N-pi-2-adamantyloxymethylhistidine, and its application to peptide synthesis. *Chem. Pharm. Bull. Tokyo*, 45, 452-456. #8521

1032. Paquet, A., Blackwell, B., Johns, M., & Nikiforuk, J. (1997) Synthesis of phosphotyrosine-containing peptides using bis-(2,2,2-trichloroethyl) groups for phosphate protection. *Int. J. Peptide Prot. Res.*, 50, 262-268. #10311

1033. Pascal, R., & Sola, R. (1997) Calcium-promoted hydrolysis of N-acylureas allows mild release of peptides anchored with the Dpr (Phoc) linker to hydrophilic resins. *Tetrahedron Lett.*, 38, 4549-4552. #8873

1034. Paulitz, C., & Steglich, W. (1997) Stereoselective modification of a cyclopentapeptide via an alpha-(ethylthio)glycine residue. *J. Org. Chem.*, 62, 8474-8478. #10318

1035. Paulsen, H., Schleyer, A., Mathieu, N., Meldal, M., & Bock, K. (1997) New solid-phase oligosaccharide synthesis on glycopeptides bound to a solid phase. *J. Chem. Soc. Perkin Trans. 1*, 281-293. #12522

1036. Pawlak, D., Chung, N.N., Schiller, P.W., & Izdebski, J. (1997) Synthesis of a novel side-chain to side-chain cyclized enkephalin analogue containing a carbonyl bridge. *J. Peptide Sci.*, 3, 277-281. #9384

1037. Pehk, T., & Uri, A. (1997) Synthesis and structural characterization of conjugates of adenosine and tetra-aspartate, novel analogs of ATP. *Bioorg. Med. Chem. Lett.*, 7, 2159-2164. #10321

1038. Peluso, S., Dumy, P., Eggleston, I.M., Garrouste, P., & Mutter, M. (1997) Protein mimetics (TASP) by sequential condensation of peptide loops to an immobilised topological template. *Tetrahedron*, 53, 7231-7236. #9101

1039. Perich, J.W. (1997) Synthesis of phosphopeptides using modern chemical approaches. *Methods Enzymol.*, 289, 245-266. #9995

1040. Pernerstorfer, J., Schuster, M., & Blechert, S. (1997) Cyclisation/cleavage of macrocycles by ring-closing metathesis on solid support: Conformational studies. *Chem. Commun.*, 1949-1950. #12523

1041. Pfeifer, M.E., Linden, A., & Robinson, J.A. (1997) Synthesis of a novel tricyclic dipeptide template and its incorporation into a cyclic peptide mimetic containing an NPNA motif. *Helv. Chim. Acta*, 80, 1513-1527. #9400

1042. Pichette, A., Voyer, N., Larouche, R., & Meillon, J.C. (1997) A useful method for the preparation of fully protected peptide acids and esters. *Tetrahedron Lett.*, 38, 1279-1282. #8857

1043. Pinilla, C., Appel, J.R. & Houghten, R.A. (1997) The generation of peptide combinatorial libraries using tea bag synthesis: Identification of B-cell epitopes. In I. Lefkovits (Ed.), *Immunology Methods Manual*. (pp. 837-845). Academic Press Limited, London. #8690

1044. Pothion, C., Paris, M., Heitz, A., Rocheblave, L., Rouch, F., Fehrentz, J.A., & Martinez, J. (1997) Use of ozonolysis in the synthesis of C-terminal peptide aldehydes on solid support. *Tetrahedron Lett.*, 38, 7749-7752. #9679

1045. Pyun, J.C., Cheong, M.Y., Park, S.H., Kim, H.Y., & Park, J.S. (1997) Modification of short peptides using epsilon-aminocaproic acid for improved coating efficiency in indirect enzyme-linked immunosorbent assays (ELISA). *J. Immunol. Method*, 208, 141-149. #10334

1046. Qabar, M.N., Urban, J., & Kahn, M. (1997) A facile solution and solid phase synthesis of phosphotyrosine mimetic L-4-[diethylphosphono(difluoromethyl)]-phenylalanine (F(2)Pmp(Et)(2)) derivatives. *Tetrahedron*, 53, 11171-11178. #9413

1047. Rano, T.A., Timkey, T., Peterson, E.P., Rotonda, J., Nicholson, D.W., Becker, J.W., Chapman, K.T., & Thornberry, N.A. (1997) A combinatorial approach for determining protease specificities: Application to interleukin-1beta converting enzyme (ICE). *Chem. Biol.*, 4, 149-155. #9284

1048. Richter, L.S., & Desai, M.C. (1997) A TFA-cleavable linkage for solid-phase synthesis of hydroxamic acids. *Tetrahedron Lett.*, 38, 321-322. #8244

1049. Rodionova, L.N., Zagranichny, V.E., Rodionov, I.L., Lipkin, V.M., & Ivanov, V.T. (1997) The total solid phase synthesis of the gamma subunit of cGMP phosphodiesterase from bovine retina and some physicochemical properties of the synthetic protein [russian]. *Bioorganicheskaiia Khimiia*, 23, 933-948. #10498

1050. Rodriguez, E.C., Winans, K.A., King, D.S., & Bertozi, C.R. (1997) A strategy for the chemoselective synthesis of O-linked glycopeptides with native sugar-peptide linkages. *J. Amer. Chem. Soc.*, 119, 9905-9906. #10342

1051. Romoff, T.T., & Goodman, M. (1997) Urethane-protected N-carboxyanhydrides (UNCAs) as unique reactants for the study of intrinsic racemization tendencies in peptide synthesis. *J. Pept. Res.*, 49, 282-292. #9951

1052. Rosenthal, K., Karlstrom, A., & Und n, A. (1997) The 2,4-dimethylpent-3-yloxy carbonyl (Doc) group as a new, nucleophile-resistant protecting group for tyrosine in solid phase peptide synthesis. *Tetrahedron Lett.*, 38, 1075-1078. #8410

1053. Rosse, G., Sequin, U., Mett, H., Furet, P., Traxler, P., & Fretz, H. (1997) Synthesis of modified tripeptides and tetrapeptides as potential bisubstrate inhibitors of the epidermal growth factor receptor protein tyrosine kinase. *Helv. Chim. Acta*, 80, 653-670. #9086

1054. Rovatti, L., Masin, B., Catinella, S., & Hamdan, M. (1997) Crudes of synthesis of neuropeptide Y and beta-amyloid peptide examined by liquid chromatography electrospray tandem mass spectrometry. *Rapid Commun. Mass Spectrom.*, 11, 1223-1229. #9525

1055. Sabirov, A.N., Kim, Y.D., Kim, H.J., & Samukov, V.V. (1997) FMOC- and NSC-groups as a base labile N(alpha)-amino protection: A comparative study in the automated SPPS. *Protein Peptide Lett.*, 4, 307-312. #9742

1056. Safavy, A., Buchsbaum, D.J., Qin, H., & Khazaeli, M.B. (1997) Synthesis of bombesin analogues for radiolabeling with rhenium-188. *Cancer*, 80, 2354-2359. #9926

1057. Samson, I., Rozenski, J., Samyn, B., van Aerschot, A., van Beeumen, J., & Herdewijn, P. (1997) Screening a random pentapeptide library, composed of 14 D-amino acids, against the COOH-terminal sequence of fructose-1,6-bisphosphate aldolase from *Trypanosoma brucei*. *Journal of Biological Chemistry*, 272, 11378-11383. #9247

1058. Sanchez, A., & Smith, A.J. (1997) Capillary electrophoresis. *Methods Enzymol.*, 289, 469-478. #10002

1059. Sarantakis, D., & Bicksler, J.J. (1997) Solid phase synthesis of sec-amides and removal from the polymeric support under mild conditions. *Tetrahedron Lett.*, 38, 7325-7328. #9570

1060. Sasaki, Y., & Abe, J. (1997) Protection of Psi(CH₂NH) peptide bond with 2,4-dimethoxybenzyl group in solid-phase peptide synthesis. *Chem. Pharm. Bull. Tokyo*, 45, 13-17. #8233

1061. Satoh, T., Aramini, J.M., Li, S., Friedman, T.M., Gao, J., Edling, A.E., Townsend, R., Koch, U., Choksi, S., Germann, M.W., Korngold, R., & Huang, Z. (1997) Bioactive peptide design based on protein surface epitopes. A cyclic heptapeptide mimics CD4 domain 1 CC' loop and inhibits CD4 biological function. *Journal of Biological Chemistry*, 272, 12175-12180. #11665

1062. Scarfi, S., Gasparini, A., Damonte, G., & Benatti, U. (1997) Synthesis, uptake, and intracellular metabolism of a hydrophobic tetrapeptide-peptide nucleic acid (PNA)-biotin molecule. *Biochem. Biophys. Res. Commun.*, 236, 323-326. #9366

1063. Schleyer, A., Meldal, M., Manat, R., Paulsen, H., & Bock, K. (1997) Direct solid-phase glycosylations of peptide templates on a novel PEG-based resin. *Angew. Chem. Int. Ed.*, 36, 1976-1978. #9631

1064. Schneider, C.H. (1997) *Peptides in Immunolgy*. John Wiley & Sons, New York. ISBN 0471965901 #11586

1065. Scholten, J.D., Zimmerman, K.K., Oxender, M.G., Leonard, D., Sebolt-Leopold, J.S., Gowan, R., & Hupe, D.J. (1997) Synergy between anions and farnesyldiphosphate competitive inhibitors of farnesyl-protein transferase. *Journal of Biological Chemistry*, 272, 18077-18081. #9456

1066. Scott, W.L., Zhou, C., Fang, Z., & O'Donnell, M.J. (1997) The solid phase synthesis of alpha, alpha-disubstituted unnatural amino acids and peptides (di-UPS). *Tetrahedron Lett.*, 38, 3695-3698. #8853

1067. Sebastian, D., Heuser, A., Schulze, S., & Waldmann, H. (1997) Selective enzymatic removal of protecting groups from phosphopeptides: Chemoenzymatic synthesis of a characteristic phosphopeptide fragment of the RAF-1 kinase. *Synthesis-Stuttgart*, 1098-1108. #10356

1068. Seitz, O., & Wong, C.H. (1997) Chemoenzymatic solution- and solid-phase synthesis of O-glycopeptides of the mucin domain of madcam-1: A general route to O-lacnac, O-sialyl-lacnac, and O-sialyl-lewis-x peptides [review]. *J. Amer. Chem. Soc.*, 119, 8766-8776. #10357

1069. Seitz, O., & Kunz, H. (1997) HYCRON, an allylic anchor for high-efficiency solid phase synthesis of protected peptides and glycopeptides. *J. Org. Chem.*, 62, 813-826. #8389

1070. Shapiro, G., Buchler, D., Dalvit, C., Frey, P., del Carmen Fernandez, M., Gomez-Lor, B., Pombo-Villar, E., Stauss, U., Swoboda,

R., & Waridel, C. (1997) Combined Fmoc-Alloc strategy for a general SPPS of phosphoserine peptides: Preparation of phosphorylation-dependent tau antisera. *Bioorg. Med. Chem.*, 5, 147-156. #9948

1071. Sharma, S., & Pasha, S. (1997) Rapid anchoring of cesium salts of Boc-protected amino acids on chloromethyl polystyrene resin using dibenzo-18-crown-6 as a catalyst. *Bioorg. Med. Chem. Lett.*, 7, 2077-2080. #10359

1072. Shin, J.A. (1997) Specific DNA binding peptide-derivatized solid support. *Bioorg. Med. Chem. Lett.*, 7, 2367-2372. #9987

1073. Shin, S.Y., Lee, M.K., Kim, S.Y., Jang, S.Y., & Hahm, K.S. (1997) The use of multiple antigenic peptide (MAP) In the immunodiagnosis of human immunodeficiency virus infection. *Biochem. Mol. Biol. Int.*, 43, 713-721. #11139

1074. Sidorova, M.V., Molokoedov, A.S., Ovchinnikov, M.V., Bespalova, Z.D., & Bushuev, V.N. (1997) Solid phase synthesis of beta-amyloid(1-42) [russian]. *Bioorganicheskaiia Khimiia*, 23, 46-55. #9279

1075. Singh, P., Hurrell, C.R., Findlay, J.B.C., & Fishwick, C.W.G. (1997) Two novel amino acid derivatives containing side-chain thioamides for the synthesis of photoactivatable peptides. *Bioorg. Med. Chem. Lett.*, 7, 715-718. #10026

1076. Smith, A.J. (1997) Amino acid analysis. *Methods Enzymol.*, 289, 419-426. #10000

1077. Soderstrom, K., Choi, H.Y., Berman, F.W., Aldrich, J.V., & Murray, T.F. (1997) N-alkylated derivatives of [D-Pro(10)]dynorphin a-(1-11) are high affinity partial agonists at the cloned rat kappa-opioid receptor. *Eur. J. Pharmacol.*, 338, 191-197. #10369

1078. Song, A.I., & Rana, T.M. (1997) Synthesis of an amino acid analogue to incorporate p-aminobenzyl-EDTA in peptides. *Bioconjug. Chem.*, 8, 249-252. #9276

1079. Songster, M.F., & Barany, G. (1997) Handles for solid-phase peptide synthesis. *Methods Enzymol.*, 289, 126-174. #9935

1080. Stewart, J.M. (1997) Cleavage methods following Boc-based solid-phase peptide synthesis. *Methods Enzymol.*, 289, 29-44. #9933

1081. Sueiras-Diaz, J., Jones, D.M., Szelke, M., Leckie, B.J., Beattie, S.R., Beattie, C., & Morton, J.J. (1997) Potent in vivo inhibitors of rat renin - analogues of human and rat angiotensinogen sequences containing different classes of pseudodipeptides at the scissile site. *Int. J. Peptide Prot. Res.*, 50, 239-247. #10379

1082. Sugimoto, N., & Nakano, S. (1997) Sandwiching interaction of peptides with a porphyrin. *Chem. Lett.*, 939-940. #10380

1083. Suhara, Y., Izumi, M., Ichikawa, M., Penno, M.B., & Ichikawa, Y. (1997) Peptide-sugar hybrids: Like peptide, like oligosaccharide. *Tetrahedron Lett.*, 38, 7167-7170. #9561

1084. Tam, J.P., & Spetzler, J.C. (1997) Multiple antigen peptide system. *Methods Enzymol.*, 289, 612-637. #10007

1085. Tandon, R., Singh, M.P., Haq, W., Dikshit, M., Patnaik, G.K., & Dhar, M.M. (1997) Synthesis of novel tetrapeptides as potential ACE inhibitors. *Ind. J. Chem. B-Org. Chem. Med. Chem.*, 36, 386-390. #9540

1086. Tegge, W., & Frank, R. (1997) Peptide synthesis on Sepharose(TM) beads. *J. Pept. Res.*, 49, 355-362. #8702

1087. Thieriet, N., Alsina, J., Giralt, E., Guibe, F., & Albericio, F. (1997) Use of Alloc-amino acids in solid-phase peptide synthesis. Tandem deprotection-coupling reactions using neutral conditions. *Tetrahedron Lett.*, 38, 7275-7278. #9564

1088. Tholey, A., & Hoffmann, B. (1997) Solid-phase synthesis of tyrosyl H-phosphonopeptides and methylphosphonopeptides. *J. Peptide Sci.*, 3, 186-192. #9890

1089. Thompson, P.E., & Hearn, M.T.W. (1997) Fmoc-protected tropane-based amino acids for peptide structure-function studies. *Tetrahedron Lett.*, 38, 2907-2910. #8788

1090. Torres, J.L., & Clapes, P. (1997) Neoglycopeptide synthesis and purification in multi-gram scale: Preparation of O-(2,3,4,6-tetra-O-acetyl-beta-D-galactopyranosyl)-N-alpha-fluoren-9-yl-methoxycarbonyl-hydroxyproline and its use in the pilot-scale synthesis of the potent analgesic glycopeptide 01.5-beta-D-galactopyranosyl[DMet2,Hyp5]enkephalinamide. *J. Peptide Sci.*, 3, 99-109. #9946

1091. Uray, K. (1997) Analysis of the epitope structure of mucin glycoproteins with synthetic peptides and mucin specific monoclonal antibodies [hungarian]. *Magyar Kemiai Folyoirat*, 103, 237-240. #9076

1092. Valentijn, A.R.P.M., van der Marel, G.A., Sliedregt, L.A.J.M., van Berkel, T.J.C., Biessen, E.A.L., & van Boom, J.H. (1997) Solid-phase synthesis of lysine-based cluster galactosides with high affinity for the asialoglycoprotein receptor. *Tetrahedron*, 53, 759-770. #8267

1093. Vandijk, A.A., Vanwijk, L.L., van Vliet, A., Haris, P., Vanswieten, E., Tesser, G.I., & Robillard, G.T. (1997) Structure characterization of the central repetitive domain of high molecular weight gluten proteins. 1. Model studies using cyclic and linear peptides. *Protein Sci.*, 6, 637-648. #9289

1094. Varanda, L.M., & Miranda, M.T.M. (1997) Solid-phase peptide synthesis at elevated temperatures: A search for an optimized synthesis condition of unsulfated cholecystokinin-12. *J. Pept. Res.*, 50, 102-108. #9408

1095. Vunnam, S., Juvvadi, P., & Merrifield, R.B. (1997) Synthesis and antibacterial action of cecropin and proline- arginine-rich peptides from pig intestine. *J. Pept. Res.*, 49, 59-66. #9224

1096. Wade, J.D., & Tregear, G.W. (1997) Relaxin. *Methods Enzymol.*, 289, 637-646. #10008

1097. Walker, M.A. (1997) Protein synthesis by chemical ligation of unprotected peptides in aqueous solution. *Angew. Chem. Int. Ed.*, 36, 1069-1071. #9519

1098. Wang, Q.M., Johnson, R.B., Cohen, J.D., Voy, G.T., Richardson, J.M., & Jungheim, L.N. (1997) Development of a continuous fluorescence assay for rhinovirus 14 3C protease using synthetic peptides. *Antivir. Chem. Chemother.*, 8, 303-310. #9458

1099. Wang, R., Li, X.X., Hu, X.Y., Ni, J.M., Li, C.L., & Lu, J.F. (1997) The synthesis, bioactivity and paramagnetic resonance of angiotensin II and its spin labelled derivative. *Chin. Sci. Bull.*, 42, 1843-1846. #10679

1100. Wang, Y.J.J., Yurttas, L., Dale, B.E., Russell, D.H., Kinsel, G., Prestonschaffter, L.M., Johnson, V., & Hayes, T.K. (1997) MALDI-MS as a monitor of the purification and folding of synthetic eclosion hormone. *Peptides*, 18, 337-346. #9239

1101. Weber, P.J.A., & Beck-Sickinger, A.G. (1997) Comparison of the photochemical behavior of four different photoactivatable probes. *J. Pept. Res.*, 49, 375-383. #9197

1102. Webster, K.L., Rutherford, T.J., & Gani, D. (1997) Comparison of solution-phase and solid-phase syntheses of a restrained proline-containing analogue of the nodularin macrocycle. *Tetrahedron Lett.*, 38, 5713-5716. #9317

1103. Wellings, D.A., & Atherton, E. (1997) Standard Fmoc protocols. *Methods Enzymol.*, 289, 44-67. #9991

1104. Wilson, C.J., Husain, S.S., Stimson, E.R., Dangott, L.J., Miller, K.W., & Maggio, J.E. (1997) p-(4-Hydroxybenzoyl)phenylalanine: A photoreactive amino acid analog amenable to radioiodination for elucidation of peptide-protein interaction application to substance P receptor. *Biochemistry*, 36, 4542-4551. #9257

1105. Wipf, P., & Henninger, T.C. (1997) Solid-phase synthesis of peptide mimetics with (E)-alkene amide bond replacements derived from alkenylaziridines. *J. Org. Chem.*, 62, 1586-1587. #9168

1106. Xu, J.X., & Jin, S. (1997) Studies on synthesis and antitumor activities of analogues and segments of *papaver somniferum* pollen heptadecapeptide [chinese]. *Chem. J. Chin. Univ.*, 18, 1098-1102. #9533

1107. Yanai, Y., Irie, K., Ohigashi, H., & Wender, P.A. (1997) Synthesis and characterization of the first cysteine-rich domain of novel protein kinase C. *Bioorg. Med. Chem. Lett.*, 7, 117-122. #8658

1108. Yao, S., Ghosh, I., Zutshi, R., & Chmielewski, J. (1997) A pH-modulated, self-replicating peptide. *J. Amer. Chem. Soc.*, 119, 10559-10560. #10428

1109. Ye, Y.H., Fan, C.X., Zhang, D.Y., Xie, H.B., Hao, X.L., & Tian, G.L. (1997) Application of four novel organophosphorus compounds as coupling reagents for synthesis of bioactive peptides [chinese]. *Chem. J. Chin. Univ.*, 18, 1086-1092. #9532

1110. Yokum, T.S., Tungaturthi, P.K., & McLaughlin, M.L. (1997) Benz[f]tryptophan, a bathochromic analog of tryptophan, synthesis of its N-alpha-t-Boc derivative. *Tetrahedron Lett.*, 38, 5111-5114. #9033

1111. Yokum, T.S., Bursavich, M.G., Piha-Paul, S.A., Hall, D.A., & McLaughlin, M.L. (1997) Synthesis of a series of polar, orthogonally protected, alpha,alpha-disubstituted amino acids. *Tetrahedron Lett.*, 38, 4013-4016. #9048
1112. Yoshikawa, M., Izumi, J., & Kitao, T. (1997) Enantioselective electrodialysis of amino acids with charged polar side chains through molecularly imprinted polymeric membranes containing dide derivatives. *Polym. J.*, 29, 205-210. #9148
1113. Zenouaki, I., Kharrat, R., Sabatier, J.M., Devaux, C., Karoui, H., Van Rietschoten, J., Elayeb, M., & Rochat, H. (1997) In vivo protection against androctonus australis hector scorpion toxin and venom by immunization with a synthetic analog of toxin ii. *Vaccine*, 15, 187-194. #8370
1114. Zhang, L., & Tam, J.P. (1997) Orthogonal coupling of unprotected peptide segments through histidyl amino terminus. *Tetrahedron Lett.*, 38, 3-6. #8607
1115. Zhang, L.S., & Tam, J.P. (1997) Synthesis and application of unprotected cyclic peptides as building blocks for peptide dendrimers. *J. Amer. Chem. Soc.*, 119, 2363-2370. #9178
1116. Zhang, L.S., & Tam, J.P. (1997) Metal ion-assisted peptide cyclization. *Tetrahedron Lett.*, 38, 4375-4378. #9515
1117. Zhao, Z.G. & Lam, K.S. (1997) Synthetic peptide libraries. In W.H. Moos, M.R. Pavia, B.K. Kay & A.D. Ellington (Eds.), *Annual Reports in Combinatorial Chemistry and Molecular Diversity*. (pp. 192-209). ESCOM, Leiden. #8624
1118. Zhong, H.M., Greco, M.N., & Maryanoff, B.E. (1997) Solid-phase synthesis of arginine-containing peptides by guanidine attachment to a sulfonyl linker. *J. Org. Chem.*, 62, 9326-9330. #9734

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